



DPW

CITY OF ATLANTA • DEPARTMENT OF PUBLIC WORKS

Solid Waste Sanitary Services Revenue Sufficiency & Cost of Service Report



City of Atlanta
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SCS ENGINEERS

Management Services

09220100.02 | March 25, 2024

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March 25, 2024

SCS ENGINEERS

Mr. Alfred Wiggins
Department of Public Works Commissioner
City of Atlanta
55 Trinity Avenue, SW
Suite 2400
Atlanta, GA 30303

Subject: Solid Waste Sanitary Services Revenue Sufficiency and Cost of Service Update Report

Dear Commissioner Wiggins,

SCS Engineers Management Services (SCS) is pleased to present this Solid Waste Sanitary Services Revenue Sufficiency and Cost of Service Report (Report) prepared for the City of Atlanta (City). SCS was initially retained by the City's Department of Public Works' Office of Solid Waste Services (DPW SWS) to make a long-term financial management plan for the City's solid waste operations through Fiscal Year (FY) 2034 and update the City's cost to provide services.

This Report is focused on recommending a rate increase for FY 2025 and quantifying potential solid waste management program changes that could improve operational efficiency and/or reduce operational expenses. To meet these objectives, SCS relied on information provided by City finance staff and DPW SWS staff and consultants including, but not limited to, customer and service type information, historical billed amounts, budgeted and historical financial operating revenues and costs, capital plans, long-term liabilities, and other financial and internal policy information.

The Report following this letter details the assumptions, findings, and recommendations of this analysis, and includes an executive summary that summarizes the key results and findings for each component of the study.

We appreciate this opportunity to continue to be of service to the City, and the kind and diligent assistance provided by you and your staff. We look forward to continue working with you in the future. If you have any questions or would like to discuss this further, please call Daniel Dietch at (305) 298-6568.

Regards,



Daniel Dietch
Project Manager
SCS Engineers



Kira Bieber
Analyst II
SCS Engineers

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Appendix A	Solid Waste Revenue Sufficiency Analysis
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ACRONYMS

Acronym	Definition
ASL	Automated Side Load Collection Vehicle
CIP	Capital Improvement Plan
COLA	Cost of Living Adjustment
COSA	Cost of Service Analysis
CPI	Consumer Price Index
DEAM	Department of Enterprise Asset Management
DPW	Department of Public Works
ES	Executive Summary
FY	Fiscal Year
MSW	Municipal Solid Waste
RL	Rear Load Collection Vehicle
RSA	Revenue Sufficiency Analysis
R&M	Repair and Maintenance
SCS	SCS Engineers Management Services
SWS	Office of Solid Waste Services

DEFINITIONS

Term	Definition
Annual Net Cost	The annual cost or savings associated with an operational scenario
Bin	A solid waste or recycling container that stores non-putrescible and putrescible materials that is collected by a front load collection vehicle
Cart	An enclosed wheeled container that stores between 35–95 gallons of non-putrescible and putrescible materials
City	City of Atlanta
Common Good/Special Services	Services that benefit all of the City’s residential solid waste customers
Cost of Issuance	The expenses paid by or on behalf of the issuer in connection with the sale and issuance of bonds
Cost of Service	The total cost of providing a service to a customer. It includes all the costs associated with providing the service, such as labor, materials, overhead, and other expenses
Debt Service Coverage	A financial metric that measures the ability to pay debt obligations using cash flow

Term	Definition
Debt Service Reserve	A financial reserve which works as an additional security measure for the lender as it ensures that the borrower will always have funds deposited to cover future debt service
Finance	The Department of Public Works - Administration & Finance
General Fund	The fund that support general City operations
Interest Rate	The proportion of a loan that is charged as interest to the City, expressed as an annual percentage of the loan outstanding
Operational Analysis	A method of examining the current performance of an operational investment and measuring that performance against an established set of costs, schedule and performance parameters
Report	Solid Waste Sanitary Services Revenue Sufficiency and Cost of Service Report
Revenue Sufficiency	The condition where revenues are sufficient to pay for debt service and operations
Revenue Sufficiency Model	A model that computes a multi-year projection of the City's current assessment and rate revenues to determine whether the level of existing revenues can meet the projected City financial requirements
Rubicon	The provider of the City's solid waste routing and data management software
Scenario Analysis	The process of estimating the expected value of an anticipated operational or other change
Solid Waste	Any garbage or refuse collected by the City
Term	The duration related to borrowing funds
Truck	A truck or vehicle that collects waste and transports it to a waste treatment facility
Yard Trimming	Segregated plant material (e.g., leaves, grass clippings, branches, brush, flowers, roots, wood waste) generated at residential properties and set out for City collection

EXECUTIVE SUMMARY

This Executive Summary presents highlights of the solid waste services analysis conducted for the City of Atlanta (City) by SCS Engineers (SCS) related to: 1) Revenue Sufficiency Analysis; 2) Cost of Service; and 3) potential solid waste management program changes that could improve operational efficiency and/or reduce operational expenses.

BACKGROUND

SCS was engaged by the City to analyze the financial stability of its solid waste operations over a multi-year projection period. As part of this engagement, The City also tasked SCS with analyzing different operational scenarios including: changing from rear load (RL) to automated side load (ASL) vehicles for solid waste and/or yard trimming collection, change from a 5-day to 4-day work week, change yard trimming collection from weekly service to biweekly, using carts for yard trimming collection, implementing a cart maintenance program, and reducing vehicle maintenance expense.

Any significant changes to the city's overall collection strategy, might be best experienced by developing several "pilot" programs that can test assumptions and impacts on the overall operational system. With a city as large and as complex as Atlanta, the benefit of real experiences in the field might assist in the development of the best overall strategy for the City of Atlanta.

OBJECTIVES

The objectives of this study were as follows:

- **Revenue Sufficiency Analysis Update** – Project the sufficiency of revenues to fund Department of Public Works (DPW) Solid Waste Services (SWS) operating expenses, capital program, and debt service while maintaining adequate working capital reserve requirements over a long-term projection period. The update presented herein focuses on the recommended rate increase for FY 2025.
- **Cost of Service Update** – Apportion costs among service types to determine the reasonable allocation of the cost of solid waste sanitary services provided by the City.
- **Operational Scenarios Analysis** – Analyze the initial and ongoing financial impact of operational changes compared to the status quo.

REVENUE SUFFICIENCY ANALYSIS (RSA)

The RSA evaluated the sufficiency of DPW SWS' rate revenues and General Fund reimbursements to meet all of its current and projected financial requirements over a ten-year projection period, and determined the level of revenue adjustments necessary in each year of the projection period to provide sufficient revenues to fund the City's cost requirements. The immediate focus is to recommend a rate increase for Fiscal Year (FY) 2025, which is presented in **Figure ES-1**.

Figure ES-1. FY 2025 Revenue Adjustment Recommendation

FY 2025 Revenue Adjustment Recommendation

Revenue Adjustment %	FY 2025 3.50%
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The recommended FY 2025 revenue adjustment of 3.50% is due to both internal and external factors. External factors include inflation impacting labor and assets and supply chain disruptions and internal factors include expenses exceeding revenues and not implementing recommended rate increases in prior years. In addition, the \$26.7 million in revenue for Special Services and Other Revenue will need to increase along with the above revenue adjustment plan each year.

It should be noted that the recommended revenue adjustment of 3.50% for FY 2025 is partially reflective of CPI, which currently exceeds 3%. It should be further noted that this study excludes future expenses for the following:

- Recent cost of living adjustments (COLA)
- Relocation of the Yard Waste Transfer Station
- Updating the Solid Waste Master Plan

To place the recommended revenue adjustment into context, Gwinnett County, GA implemented a 14% rate increase in FY 2024 and the City of Augusta, GA implemented a 38% rate increase in FY 2024.

COST OF SERVICE ANALYSIS (COSA)

The cost to provide solid waste and special (i.e., common goods) services for the City are allocated to 25 cost center pools. The results reflect how much it costs the City to provide each of these services. These costs are based off of the FY 2025 expense projections, and are subject to change based on labor changes, operational changes, and market conditions. **Figure ES-2 and Figure ES-3** present the expenses incurred in providing each service.

Figure ES-2. Cost of Service Summary – Solid Waste Services

Cost of Service Summary - Solid Waste		
Service Fees	Expenses	%
Garbage Collection	\$ 17,170,618	29.7%
Yard Trimming Collection	\$ 10,043,384	17.4%
Recycling	\$ 8,103,010	14.0%
Post-Closure Care	\$ 7,454,217	12.9%
Multi-Family / Dumpster Collection	\$ 6,021,651	10.4%
Bulk Rubbish Collection	\$ 2,836,428	4.9%
Backyard Collection Solid Waste	\$ 2,685,027	4.6%
Yard Trimming Processing	\$ 2,119,782	3.7%
Backyard Collection Recycling	\$ 878,862	1.5%
Damaged Cart Replacements	\$ 477,778	0.8%
Total	\$ 57,790,758	100.0%

Figure ES-3. Cost of Service Summary – Special Services

Cost of Service Summary - Special Services		
Service Fees	Expenses	%
Street Sweeping	\$ 8,247,694	37.3%
ROW Grass Mowing	\$ 4,143,100	18.7%
Trash Receptacle Collection	\$ 2,069,338	9.4%
Lot Clearing	\$ 1,836,599	8.3%
Keep Atlanta Beautiful	\$ 803,276	3.6%
Dead Animal Collection	\$ 738,173	3.3%
Illegal Dumping	\$ 722,938	3.3%
SWEET	\$ 694,007	3.1%
Special Event Cleanup	\$ 473,423	2.1%
Bin Delivery	\$ 940,809	4.3%
Community Cleanup	\$ 380,233	1.7%
Fortification	\$ 365,284	1.7%
Unsheltered Encampment Cleanups	\$ 365,284	1.7%
Illegal Sign Removal	\$ 326,808	1.5%
Damaged Cart Replacements	\$ 2,138	0.0%
Total	\$ 22,109,105	100.0%

Data for the above two tables include FY 2025 expense projections from the revenue sufficiency analysis which can be found in **Appendix A. Each line item is allocated to the City’s cost center pools (shown above). Methods of allocation include direct allocation, where costs were assigned to a direct cost center pool, indirect

allocation, for example, personal services, employee hours, equipment cost, equipment hours or, weighted averages, if a specific allocation criterion could not be identified.

In addition, these costs are recovered in various components of the solid waste rates and through General Fund payments to DPW SWS. The General Fund is to fund the cost of certain services and exemptions. Specifically, the funding includes other revenue of approximately \$500,000 in City solid waste collection services and \$1.8 million in tax exemptions, which is comprised of 30% of the solid waste bills for exempted persons.

SCENARIO ANALYSIS

The City identified various potential operational changes and tasked SCS to analyze the initial and ongoing financial impact of the following scenarios compared to the status quo:

- Scenario A – 5 Day to 4 Day Work Week
- Scenario B – Rear Load to Automated Side Load for Solid Waste and/or Yard Trimming Collection
- Scenario C – Yard Trimming Collection Weekly to Biweekly
- Scenario D – Yard Trimming Collection Loose to Carts
- Scenario E – Cart Repair and Maintenance
- Scenario F – Reduce Vehicle Maintenance Expense

It should be noted that the operational changes evaluated will have an effect on the need for additional revenues and the recommended revenue adjustment plan does not include these scenarios, since it is not confirmed which scenarios will be implemented, any potential synergies between scenarios, nor in which fiscal year the changes will be implemented.

It is also important to note that the scenario assumptions and inputs are based on discussions and data provided by City Staff as well as SCS’s experience and industry standards (e.g., max stops per route based on vehicle (i.e., truck) capacity). More refined annual cost savings will be estimated once the City decides which scenarios will be incorporated, and in which fiscal year.

The estimated Annual Net Cost (Savings) is summarized below in **Figure ES-4** and detailed calculations are presented in **Appendix B**.

Figure ES-4. Estimated Financial Impact of Operational Change Scenarios

Scenario Summary

Annual Net Cost (Savings)	Current	Proposed	Cost (Savings)
5-Day Week to 4-Day Week - MSW	\$5,030,000	\$5,815,000	\$785,000
5-Day Week to 4-Day Week - Yard Trimmings	\$4,795,000	\$5,140,000	\$345,000
Rear Load to Automated Side Load Vehicles - MSW	\$4,340,000	\$3,435,000	(\$905,000)
Rear Load to Automated Side Load Vehicles - Yard Trimmings	\$4,340,000	\$3,435,000	(\$905,000)
Weekly to Biweekly Yard Trimmings Collection	\$4,795,000	\$2,225,000	(\$2,570,000)
Loose Yard Trimmings to Carts/Automated Side Load Collection	\$4,880,000	\$4,430,000	(\$450,000)
Cart Repair & Maintenance Program	\$795,000	\$685,000	(\$110,000)
Reduce Vehicle Maintenance Expense	\$10,650,000	\$9,225,000	(\$1,425,000)
Total Scenario Cost (Savings)			(\$5,235,000)

It should be noted that the values presented in **Figure ES-4** are estimated and **represent the potential annual net cost impacts by scenario and total savings should all of these scenarios be combined**. Further study is required to refine the analysis to optimize the impact of each scenario.

The City will need to determine which scenario(s) will be implemented, in which fiscal year the scenarios will be implemented, and if there are potential staffing or operational synergies or complications from implementing various programs simultaneously.

Once these determinations have been made, SCS can work with the City to analyze and quantify the anticipated net savings on an annual basis and the updated revenue adjustment plan required.

1.0 INTRODUCTION

The background, scope, and objectives of the study are described below.

1.1 BACKGROUND

The City of Atlanta (City), with a population of approximately 500,000, provides solid waste sanitary service to its residents and businesses. DPW SWS, which operates as an enterprise fund of the City, currently services approximately 100,000 residential solid waste and recycling accounts and certain multifamily and City accounts. Additionally, the DPW SWS performs many additional functions for the benefit of its residents and businesses, such as yard waste collection, bulk rubbish collection, and street sweeping, which is now funded by the General Fund along with a portion by Watershed

The City is considering various operational changes, but needs to determine the effects of these changes to their current operations. The feasibility of various scenarios was considered and the City has chosen to focus on the following: changing from rear load (RL) to automated side load (ASL) vehicles (i.e., truck) for solid waste and/or yard trimming collection, changing from a 5-day to 4-day work week, continuing yard trimming collection from a weekly service to biweekly, using carts for yard trimming collection, implementing a cart maintenance program, and reducing vehicle maintenance expense. As a result, SCS was engaged by the City to analyze the financial stability of its solid waste operations over a multi-year projection period and to perform an operational scenario analysis to calculate anticipated net cost/savings for each operational change the City is considering. SCS also updated its analysis of the City's cost to provided services.

1.2 SCOPE & OBJECTIVES

The components and objectives of this study were as follows:

1. **Revenue Sufficiency Analysis Update** – Project the sufficiency of revenues to fund Department of Public Works (DPW) Solid Waste Services (SWS) operating expenses, capital program, and debt service while maintaining adequate working capital reserve requirements over a long-term projection period. The update presented herein focuses on the recommended rate increase for FY 2025.
2. **Cost of Service Update** – Apportion costs among service types to determine the reasonable allocation of the cost of solid waste sanitary services provided by the City.
3. **Operational Scenarios Analysis** – Analyze the initial and ongoing financial impact of operational changes compared to the status quo.

The following sections describe the source data and assumptions used in the analyses, the work that was performed, and the recommended financial management plans.

2.0 REVENUE SUFFICIENCY ANALYSIS (RSA)

This section describes the source data, assumptions, analysis performed, scenarios considered, and the recommended financial management plan for the City. Detailed schedules of the assumptions and results can be found in **Appendix A**.

2.1 SOURCE DATA

The following presents the source data provided to SCS by the City, which was relied upon to conduct the study.

2.1.1 Beginning Fund Balances

Unaudited trial balance schedules for the fiscal year ended 6/30/2023 were used to establish fund balances for DPW SWS and its subfunds.

2.1.2 Revenues

The revenues utilized in the RSA reflect an evaluation of multiple years of historical results and rate revenues collected, the FY 2024 Budget, and conversations with City staff. Beginning in FY 2025, rate revenue is based upon the FY 2024 projection, adjusted annually to reflect assumed revenue adjustments and change in billed parcels. Projections of all other revenues are based upon the FY 2024 projection, excluding interest income (which was calculated annually based upon projected average fund balances and assumed interest rates) and penalties and interest (which were assumed to increase along with rate revenues).

2.1.3 Operating Expenditures

The City's operating expenditures include all personnel services, operations and maintenance (O&M) expenses, transfers, debt service requirements, and minor capital outlay. The expenses reflected in the RSA reflect an evaluation of multiple years of historical results, the FY 2024 Budget, and conversations with the City. In each year thereafter, expenses were based upon the FY 2024 projection and assumed cost escalation factors that were reviewed with City staff. These cost escalators are further explained in section 2.2.1.

2.1.4 Capital Spending

SCS tracks and updates the Consumer Price Index (CPI) escalation monthly for use with our financial analyses as it is an industry standard basis. For capital spending, the annual percent increase in CPI is based on the 10-year average change of the [Engineering News Record – Construction Cost Index \(ENR-CCI\)](#). This value is calculated to be 3.41% and is used as the Capital Improvement Plan (CIP) escalation assumption factor in this analysis.

City staff provided project-level capital improvement projects taken from the assessment that the Department of Enterprise Asset Management (also known as DEAM) conducted for the City and the most current vehicle and equipment replacement program budgets. The total projected spending from FY 2024 – FY 2034 is projected to be approximately \$18.8 million for post-closure care, as the City is legally required to maintain the closed landfills, \$26.2 million for facility upgrades, and \$75.2 million for debt funded vehicle replacements.

2.2 ASSUMPTIONS

The following assumptions and policies were agreed upon by City staff and are reflected in the RSA and included in the schedules in **Appendix A**.

2.2.1 Revenue/Cost Escalation

When projecting revenues and costs, it is important to use realistic cost escalation factors. While we are aware that external conditions may change and slightly alter these values in the future, this is the best practice for financial projections. The escalation factors used for various types of operating assessments, revenues and expenses were based upon historical cost indices updated monthly by SCS. The following escalators represent the average percent change over the past 10 years. It is important to note, escalators used beyond FY 2025 are not guaranteed and may alter slightly due to changes in trends, The annual cost escalation factors and their sources used in this analysis are listed below:

Cost Escalation Factors		Source
Salaries	3.06%	Employment Cost Index – South Atlantic Census Division
Operations & Maintenance:	3.58%	Consumer Price Index for All Urban Consumers - Atlanta GA)
Capital Outlay:	3.55%	US Consumer Price Index – Motor Vehicle Maintenance and Repair
CIP:	3.41%	Engineering News Record – Construction Cost Index
No Escalation:	0.00%	

2.2.2 Interest Earnings on Invested Funds

The study assumes interest rate earnings of 0.25% in each year of the projection period, based upon City staff input and recent actual earnings for the City’s funds.

2.2.3 Customer & Billed Parcel Growth

Projected growth in billed parcels was based upon a review of historical billing data for Fulton and DeKalb County parcels and local bills. Historical values were used to calculate future growth throughout the projection period from FY 2024 – FY 2034. The assumed growth represents average annual growth rates during the examined period of approximately 1.35% per year.

2.2.4 Minimum Reserve Policies

Local government revenues are often cyclical in nature. Reserves are the portion of fund balances for utility systems that are required to satisfy the utility’s projected cash flow needs during the budget year, future capital outlays, debt payments, and debt service coverage requirements without impacting continued operations of the utility. These funds are intended for foreseen financial needs

as well as to minimize risk associated with emergencies, economic downturns, and unforeseen events that could create fiscal hardship.

Many utilities, rating agencies, and the Government Finance Officers Association (GFOA) best practice recommendations emphasize the importance of having risk-based policies or strategies to respond to significant, unplanned, unavoidable costs or revenue losses from unusual or adverse periods, unanticipated system failures, or natural disasters. Reserves also support a strong bond rating by signaling to investors that the utility has resources to repay debt, even with potential disruptions.

The financial management plan reflected herein assumes that the minimum operating fund reserve will equal 25% of annual operations and maintenance expenses for DPW SWS. This reserve level is consistent with our industry experience and a healthy level of reserves for a municipal utility system per the evaluation criteria published by the municipal bond ratings agencies. Maintaining such level of reserves retains the City's ability to access the municipal bond market for future capital bond funding.

2.2.5 Future Borrowing & Vehicle/Equipment Funding

DPW SWS cash funds most of its capital. However, part of its vehicle and equipment replacement program is financed with short-term debt. To the extent any additional short-term debt to fund DPW SWS'S vehicle and equipment replacement program would be required in any year of the projection period to fund a portion of the anticipated capital spending, the terms are based on DPW SWS'S current lease terms as follows:

Term:	6 Years
Interest Rate:	2.45%
Cost of Issuance:	2.00% of Par
Debt Service Reserve:	None
Debt Service Coverage:	None required

SCS utilizes "Municipal Bond Specialists" to retrieve interest rates for short term, subordinate, and senior lien debt. This analysis reflects a 2.45% rate for short-term borrowing. See below for the link to this website:

Municipal Bond Specialists: [Municipal Bonds Market Yields | FMSbonds.com](https://www.fmsbonds.com)

It is important to note, these values fluctuate and will be updated for future analysis.

2.3 ANALYSIS

In order to initialize the RSA, we obtained DPW SWS's historical and budgeted financial information, historical billed parcel/container counts, multi-year capital improvement programs, and the City's current financial and debt policies. We also spoke with DPW SWS staff and City Finance staff regarding other assumptions and policies that would affect the financial performance of the City, such as indebtedness to the General Fund, anticipated customer growth, reserve policies, capital funding sources, earnings on invested funds, escalation rates for operating costs, impacts of potential regulatory and legislative initiatives, etc.

SCS then input this information into our Revenue Sufficiency Model. The Revenue Sufficiency Model creates a multi-year projection of the City's current assessment and rate revenues to determine whether the level of existing revenues can meet the projected City financial requirements during each year of the projection period from FY 2024 – FY 2034. The model then calculates the level of revenue adjustments required for the fund to meet its revenue requirements. It replicates the cash flows of DPW SWS in each year of the projection period, based upon City policies and available fund balances. In each year, the model utilizes unrestricted fund balances, revenues, and capital funds to pay for any operating or capital expenditures in that year. To the extent necessary to fund all of the projects and vehicle/equipment replacements in the capital program, the model can identify the level of borrowing and the resulting debt service payments that would be required.

Consistent with the City's Ordinance 22-O-1281 (Chapters 130-77 and 130-84), the following services funded through the General Fund include:

- Providing solid waste collection services to City facilities, and
- Tax exemptions for certain parcels.

Also, beginning in FY 2023:

- Providing special services throughout the City (such as street sweeping, trash receptacle collection along public rights of way, and fortification for special events).

Consequently, the City voted to implement an ad valorem tax increase in 2022 to help fund common good services. This assumption, representing approximately \$26.7 million in FY 2024, was brought into the financial projections.

2.4 RESULTS

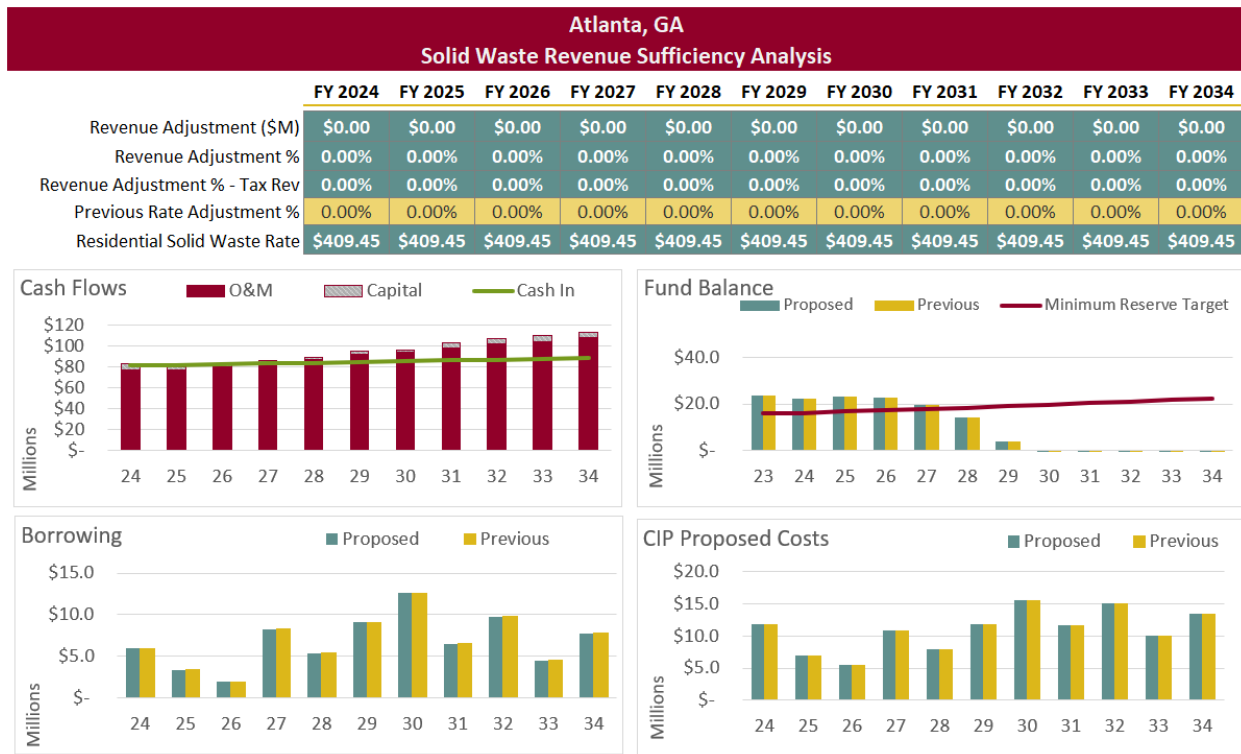
Based on the source data and input provided by City staff, and the assumptions and policies described herein, the analysis determined that the City's current revenues are not sufficient to fund its ongoing operating, capital, debt service and coverage requirements, and working capital reserve targets in any year of the projection period from FY 2024 – FY 2034. While SCS has analyzed the cost of service and revenue sufficiency over a 10-year planning period, the rate increase recommendation is presented for FY 2025 only.

It is important to note that the fund balance used in this analysis excludes the General Fund indebtedness as advised by senior management.

2.5 STATUS QUO

The fund balance graph presented in **Figure 1** reflects the SWS Revenue fund balance under the City's current rates with no additional revenue increases. Without any revenue increases, the fund balance is depleted by FY 2029.

Figure 1. 10 Year Financial Projection – Status Quo



*The above table represents the City’s fund balance should no rate increase be implemented. Annual cost escalation factors were used to project the City’s non-rate revenues and expenses. These escalators are as follows:

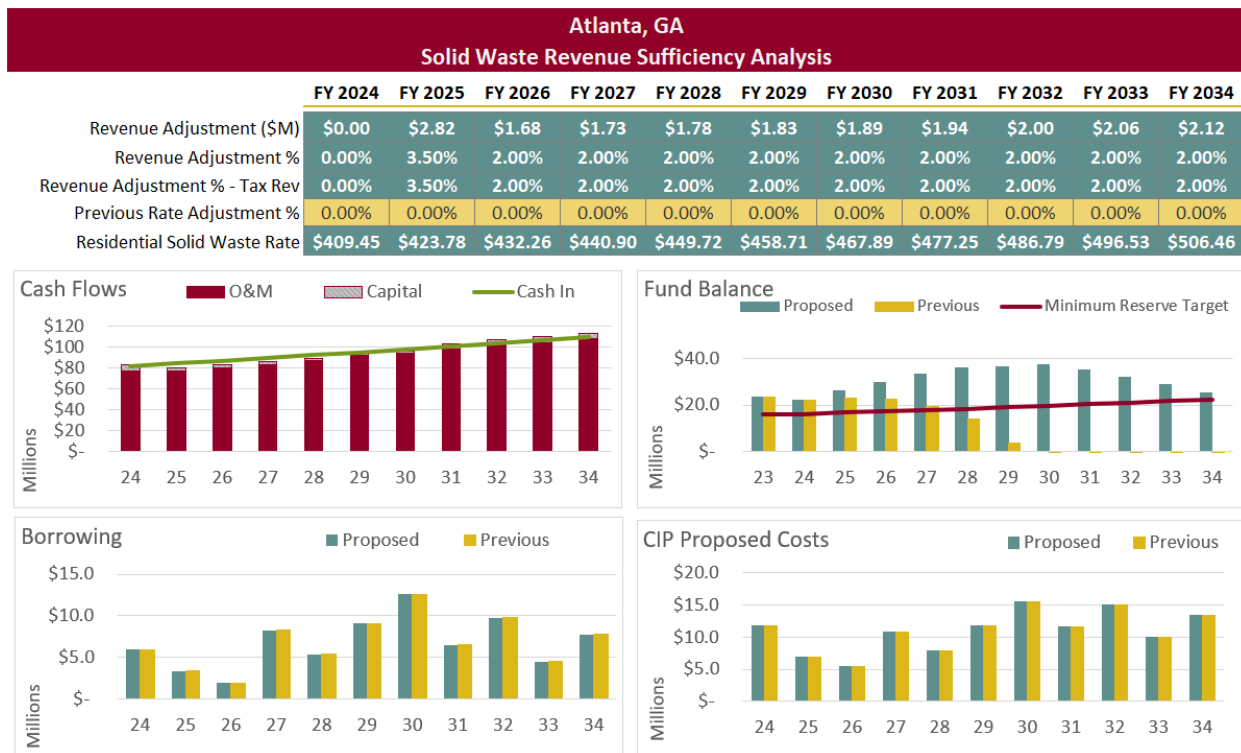
Cost Escalation Factors		Source
Salaries	3.06%	Employment Cost Index – South Atlantic Census Division
Operations & Maintenance:	3.58%	Consumer Price Index for All Urban Consumers - Atlanta GA)
Capital Outlay:	3.55%	US Consumer Price Index – Motor Vehicle Maintenance and Repair
CIP:	3.41%	Engineering News Record – Construction Cost Index
No Escalation:	0.00%	

Rate revenues were projected based on future growth which was calculated using historical data supplied by the City and future rate increases.

2.6 RECOMMENDED REVENUE ADJUSTMENT PLAN

The fund balance graph presented in **Figure 2** reflects the comparison of the City’s status quo with no revenue increases (in yellow) and the fund balance (in blue) with the increases required to remain financially sustainable throughout the projection period. The study concluded that an increase of 3.50% in FY 2025 followed by increases of 2.00% thereafter will be sufficient for the City to meet its financial requirements throughout the projection period.

Figure 2. Comparison of Status Quo with Revenue Increases



*The table above represents the City’s fund balance with the recommended rate plan of 3.50% in FY 2025 followed by 2.00% increases. Annual cost escalation factors were used to project the City’s non-rate revenues and expenses. These escalators are as follows:

Rate revenues were projected based on future growth which was calculated using historical data supplied by the City and future rate increases.

Cost Escalation Factors		Source
Salaries	3.06%	Employment Cost Index – South Atlantic Census Division
Operations & Maintenance:	3.58%	Consumer Price Index for All Urban Consumers - Atlanta GA)
Capital Outlay:	3.55%	US Consumer Price Index – Motor Vehicle Maintenance and Repair

Cost Escalation Factors		Source
CIP:	3.41%	Engineering News Record – Construction Cost Index
No Escalation:	0.00%	

It is important to note that this rate plan assumes that the General Fund is continuing to fund the cost of special services, as authorized in Ordinance 22-O-1281, among other revenue sources stated hereafter.

2.7 SCENARIO ANALYSIS

The subsections below reflect the assumptions used in the analysis, each operational change the City is considering, and the net costs associated with each. The operational changes will have an effect on the need for additional revenues, however, the above revenue adjustment plan does not include these scenarios, since it is not confirmed which scenarios will be implemented, any potential synergies between scenarios, nor in which fiscal year the changes will be implemented.

It is important to note the following:

- Scenario assumptions and inputs are based on discussions and data provided by City Staff as well as industry information and/or knowledge (ex: max stops per route based on truck capacity).
- Calculations are based on the above information.
- Final annual cost savings will be determined once the City decides which scenarios will be incorporated, and in which fiscal year.

To the extent that these scenarios generate cost savings, this may reduce the level of revenue increases required in future years. The Annual Net Cost (Savings) is shown for each scenario. The following subsections describe the data collected and analyzed, City staff input, and assumptions. Detailed calculations for each scenario are provided in **Appendix B**.

2.7.1 Data Analysis, Assumptions, and Staff Input

City staff provided detailed route data from its Rubicon software system. This system was implemented this year, so the analysis was based upon 2 months of detailed data for each trip.

Based on route data, industry experience, the number of trucks in the field, and staff input regarding time to collect, the analysis assumes the following:

Time to Leave Route, Tip, and Return	1.00	1.00
Relative Time to Collect	1.00	2.00

Based on route data and relative time to collect, our scenario analyses described herein assume the following regarding collection routes:

	MSW	Yard Trimming
Average Stops/Hour	132.00	66.00
Average Lbs/Stop	57.00	94.00
Average Trip Time	3.80	3.60
Average Trip Miles	21.40	27.40

Based on estimated set outs and route data, the containers in the field are assumed as follows:

	Set Outs	Set Out Rate	Total Containers in Field (Rounded)
Total Household Stops/Week - MSW	60,000	60%	100,000
Total Household Stops/Week - Yard Trimmings	26,000	60%	43,000

Based on staff input regarding average hourly rates for drivers and helpers and benefits cost of approximately 40%, the analysis assumes the following for labor costs:

	Base	with Benefits	Overtime
Hourly Rate for Drivers	\$22.00	\$30.80	\$33.00
Hourly Rate for Helpers	\$16.25	\$22.75	\$24.38
Benefits Multiplier	40%		

Based on City staff input regarding the current five-day work week and average overtime, the analysis assumes the following:

Hours of Regular Route Time	6	8
Hours of Overtime	2	0
% of Employees Working Overtime	15%	0%

It is important to note that, while the five-day to four-day work week scenario uses this information, the City's current operations are a five-day work week, and all other scenarios assume this current level of time in the field and overtime expense.

The City acknowledges that its repair and maintenance costs are high. However, the City has since developed a vehicle replacement program to ensure that all equipment is replaced at the end of its recommended useful life. For example, useful life of a collection vehicle is usually assumed to be approximately seven years, but the average age of the City's RL fleet is over eight years, with many vehicles 10 - 13 years old. For the purposes of this analysis and to be conservative, we assume that collections vehicles are currently used for eight years, with a recommended life of seven years.

Based on industry experience, local data, vehicle specifications, and City staff input, the analysis assumes the following regarding cart/truck/fuel costs and use:

	Cost	Life	MPG	Max Weight (Tons)
Cost/Useful Life - RL Truck	\$380,000	8	8	12.5
Cost/Useful Life - ASL Truck	\$390,000	8	8	13.5
Cost/Useful Life - Repair Truck	\$35,000	7	25	
Cart Price	\$54.00	10		
Regular Fuel/Gallon	\$2.75			
Diesel Fuel/Gallon	\$3.14			

To estimate the City’s current repair and maintenance (R&M) cost for each piece of equipment we divided the City’s projected FY 2025 repair and maintenance costs by the total count of equipment in City inventory:

Budgeted Repair & Maintenance Cost (Rounded)	\$6,075,000
Vehicles in City Inventory	268
Current R&M Cost/Vehicle (Rounded)	\$23,000

As stated, this is the average for all vehicles in the fleet, which includes other pieces of equipment such as street sweepers, knuckle booms, and pickup trucks, but this average cost is still high relative to our industry experience. The analysis assumes an annual repair and maintenance cost of \$15,000 per year for an adequately maintained collections vehicle.

2.7.2 Scenario A – 5 Day to 4 Day Work Week

The City’s current Municipal Solid Waste (MSW) and Yard Trimming collection operations are performed in a five-day work week. This entails an eight-hour work day, with approximately 15% of employees performing 2 hours of overtime per day, requiring 21 trucks, 21 drivers, and 42 helpers for MSW collection routes. For Yard Trimming collection routes, this requires 20 trucks, 20 drivers, and 40 helpers. The City wants to test the effects of switching to a four-day work week, consisting of 10-hour days assuming no overtime. For MSW routes, based on calculations of maximum stops/route based on maximum truck tonnage, a four-day work week creates the need for an increase in containers collected per day, which increases total routes/trucks to 25, 25 drivers, and 50 helpers, which is an increase of 4 trucks, 4 drivers, and 8 helpers. For Yard Trimming routes, based on calculations of maximum stops/route based on maximum truck tonnage, a four-day work week creates the need for an increase in containers collected per day, which increases total routes/trucks to 22, 22 drivers, and 44 helpers, which is an increase of 2 trucks, 2 drivers, and 4 helpers. There are also associated increases in fuel, and vehicle repairs associated with these additional trucks.

As mentioned before, a significant change like moving from 5 day a week service to 4 day a week service will impact at a minimum 25% of the resident’s collection days and may in fact impact significantly greater number of households as staff attempts to balance and equalize the routes.

A change as significant as this might benefit from starting this in one or two smaller areas and “test-drive” the financial assumption presented below.

The Annual Net Cost (Savings) for this scenario is shown below:

	Scenario A - 5 Day Week to 4 Day Week			
	MSW		Yard Trimming	
	5 Day	4 Day	5 Day	4 Day
Trips Needed/Day	27	34	27	31
Trucks Needed	21	25	20	22
Staff	63	75	60	66
Annual Truck Cost	\$1,000,000	\$1,190,000	\$950,000	\$1,045,000
Total Annual Labor Cost	\$3,485,000	\$3,975,000	\$3,305,000	\$3,500,000
Annual Fuel Cost	\$60,000	\$75,000	\$80,000	\$85,000
R&M Cost	\$485,000	\$575,000	\$460,000	\$510,000
Total Estimated Cost	\$5,030,000	\$5,815,000	\$4,795,000	\$5,140,000
Total Estimated Cost (Savings)		\$785,000		\$345,000

For MSW, there is an increase of approximately \$785,000 in costs, and an increase of approximately \$345,000 for Yard Trimming.

Aside from costs, this scenario can provide changes in worker quality of life, efficiency, and dedication, due to a reduction in working days per week. This could result in some potential savings in the long-term due to reduced turnover and associated costs of onboarding and training new staff, as well as increased efficiency from staff that are more experienced.

2.7.3 Scenario B – Rear Load to Automated Side Load for Solid Waste and/or Yard Trimming Collection

Solid waste and yard trimming collection is currently performed mostly with RL collections vehicles. Each RL vehicle requires one driver and two helpers. The City wants to test the effect of switching 75% of their RL to automated side load (ASL) vehicles, which reduces the total staff needed per truck from one driver and two helpers to one driver and one helper, reducing labor costs.

Besides the saving in labor, the city can expect significant savings in worker injuries and workers compensation due to the fact the truck hydraulic arm will do the majority of the lifting instead of the employees. While the financial savings may be difficult to assess without any field results, many jurisdictions across the US have experienced significant downturns in employee injuries and benefitted from related cost savings as a result. The automated service approach also has the benefit of allowing personnel who are older to stay on the job longer without the difficult physical demands of lifting 10 to 12 tons of yard waste each and every day.

Additionally, the capacity of a RL vehicle is 12.5 tons, but 13.5 tons for ASL trucks, decreasing the number of trucks required for the same tonnage capacity.

Labor Cost Comparison

% of Trucks Converting to ASL	75%	MSW			Yard Trimming		
		Current All RL	Proposed RL	Proposed ASL	Current All RL	Proposed RL	Proposed ASL
Tons/Truck		12.5	12.5	13.5	12.5	12.5	13.5
Total Tons (Capacity)		250	63	189	250	63	189
Trucks Required		20	5	14	20	5	14
Drivers/Truck		1	1	1	1	1	1
Helpers/Truck		2	2	1	2	2	1
Total Staff Required		60	15	28	60	15	28

In total, staff is reduced by one truck, one driver, and 16 helpers for both MSW and Yard Trimming routes. The Annual Net Cost (Savings) for this scenario is shown below:

Scenario B - Rear Load to Automated Side Load - MSW

	MSW		
	Current All RL	Proposed RL	Proposed ASL
Total Annual Labor Cost	\$3,390,000	\$850,000	\$1,665,000
Annual Truck Cost	\$950,000	\$237,500	\$682,500
Total Estimated Cost	\$4,340,000	\$1,087,500	\$2,347,500
Total Estimated Cost (Savings)			(\$905,000)

Scenario B - Rear Load to Automated Side Load - Yard Trimming - Year 1

	Yard Trimming		
	Current All RL	Proposed RL	Proposed ASL
Initial Cart Cost			\$4,050,000
Labor for Cart Roll Out			\$251,250
Annual Cost/Truck	\$3,390,000	\$850,000	\$1,665,000
Trucks	\$950,000	\$237,500	\$682,500
Total Estimated Cost	\$4,340,000	\$1,087,500	\$6,648,750
Total Estimated Cost (Savings)			\$3,396,250

Scenario B - Rear Load to Automated Side Load - Yard Trimming - Future

	Yard Trimming		
	Current All RL	Proposed RL	Proposed ASL
Annual Cost/Truck	\$3,390,000	\$850,000	\$1,665,000
Trucks	\$950,000	\$237,500	\$682,500
Total Estimated Cost	\$4,340,000	\$1,087,500	\$2,347,500
Total Estimated Cost (Savings)			(\$905,000)

This scenario results in an annual net labor savings of \$875,000 and vehicle purchase cost savings of \$30,000 per year for MSW. After year one for Yard Trimming, which contains an initial cart roll out, this scenario recognizes the same savings as MSW.

2.7.4 Scenario C – Yard Trimming Collection Weekly to Biweekly

The City transitioned to a biweekly collection schedule during COVID. This scenario assumes that the City will perform weekly collection in two zones, collecting each zone every other week. The scenario also assumes that the amount of yard trimmings at each stop will increase and, therefore, require longer time to collect at each stop. Overall, however, the necessary trucks/routes per day still decreases from 20 to 17, requiring three fewer trucks, three fewer drivers, and 6 fewer helpers, and there will be less vehicle fuel and repair expense.

One of the key considerations to factor in will be the default size of the cart to be provided. Most jurisdictions in the US, both public and private, set the default size of the cart to be 96 gallons. With the average size lots in mature “treed” communities, this size cart has proven to handle most residents yard waste generation. The city can also offer for those residents who require more service a second cart since this proves to be more efficient than handling extra bags placed at the curb. With the switch to every other week this would be an essential element that again could be piloted in areas of the city with the most deciduous trees and landscaping.

The primary driver for cost savings is that the City will no longer have to hire contract workers to assist in providing this service, an amount estimated to be approximately \$1.84 million in FY 2025. The Annual Net Cost (Savings) for this scenario is shown below:

	Yard Trimming	
	Weekly	Biweekly
Trips Needed/Day	27	21
Trucks Needed	20	17
Staff	60	51
Contract Labor		(\$1,840,000)
Annual Truck Cost	\$950,000	\$810,000
Total Annual Labor Cost	\$3,305,000	\$2,810,000
Annual Fuel Cost	\$80,000	\$50,000
R&M Cost	\$460,000	\$395,000
Total Estimated Cost	\$4,795,000	\$2,225,000
Total Estimated Cost (Savings)		(\$2,570,000)

In total, the annual net savings for this scenario is approximately \$1.8 million in contract labor and \$730,000 in other operational costs.

It is important to note, however, that yard waste collection is cyclical, and the data analyzed was during parts of August-October, some of the “slower” months of the year. The table below shows the yard waste tonnages collected from residents and delivered to the Hartsfield Transfer Station in 2023.

Hartsfield Monthly Tonnages Received

Year	Month	SWS YT Collected	% of Total
2023	January	1,105	15.2%
2023	February	827	11.4%
2023	March	681	9.4%
2023	April	558	7.7%
2023	May	589	8.1%
2023	June	395	5.4%
2023	July	454	6.3%
2023	August	589	8.1%
2023	September	229	3.2%
2023	October	392	5.4%
2023	November	875	12.1%
2023	December	559	7.7%
2023	Total	7,253	100.0%

In busier months, tonnages can be three (3) times greater than in slower months, making the predictability of pounds per stop or set outs less reliable. During these busier times, the City may require additional routes/trucks/staff to accommodate the increased amount of yard trimmings. This is the case whether collection is weekly or biweekly, but should be considered before removing routes and associated vehicles and staff.

2.7.5 Scenario D – Yard Trimming Collection Loose to Carts

The City wants to maximize the efficiency of its yard trimming collections by switching from loose material collection to 100% ASL collection in carts. This method will allow the City's collection operations to be more efficient based on average collection time per household for carts instead of manual yard trimming collection by helpers. Less time per stop means that more stops are completed per trip, so fewer trips are required, resulting in a decrease in drivers and vehicles needed.

An additional benefit to this scenario is primarily qualitative. Moving to automated collection means that the helpers will no longer physically collect the yard trimmings, reducing potential injury. This risk mitigation also creates a reduction in Worker's Compensation claims and costs over time.

The net cost in the first year is anticipated to be approximately \$4.7 million, because of the initial cart investment of approximately \$5.4 million. The City will perform a one-year cart roll out consisting of approximately 100,000 carts at \$54 each. It is assumed that the City will hire contracted drivers and helpers to distribute these carts for one year.

Scenario D - Loose Yard Trimming Collection to Collection in Carts - 1st Year

	Yard Trimming	
	Loose	Carts
Trips Needed/Day	27	24
Total Staff Required	60	46
Additional Annual Labor Cost (Savings)	\$0	\$335,000
Additional Annual Truck Cost (Savings)	\$950,000	\$975,000
Total Annual Labor Cost	\$3,390,000	\$2,380,000
Annual Fuel Cost (Rounded)	\$80,000	\$75,000
Additional Annual R&M Cost (Savings)	\$420,000	\$420,000
Initial Cart Cost	\$0	\$5,400,000
Total Estimated Cost	\$4,840,000	\$9,585,000
Total Estimated Cost (Savings)		\$4,745,000

However, after this one-time large cart expense, annual savings will be approximately \$450,000. This includes approximately \$540,000 per year in assumed cart replacements (one tenth of carts in the field are assumed to be replaced each year, as they have a 10-year assumed useful life).

Scenario D - Loose Yard Trimming Collection to Collection in Carts - Future Years

	Yard Trimming	
	Loose	Carts
Trips Needed/Day	27	24
Total Staff Required	60	40
Additional Annual Cart Cost (Savings)	\$0	\$540,000
Total Annual Labor Cost	\$3,390,000	\$2,380,000
Annual Truck Cost	\$950,000	\$975,000
Annual Fuel Cost	\$80,000	\$75,000
R&M Cost	\$420,000	\$420,000
Total Estimated Cost	\$4,840,000	\$4,390,000
Total Estimated Cost (Savings)		(\$450,000)

As discussed in the prior section, yard trimmings are seasonal, and considerably busier in winter and spring months than the rest of the year. As a result, during busier months the City may require additional routes/trucks/staff if there are more pounds per stop or more set outs than other times of the year. This can make the ability to predict routes needed and anticipated savings less reliable than if there was not such marked seasonality to the operations.

2.7.6 Scenario E – Cart Repair and Maintenance

Currently, when a customer’s cart breaks or needs maintenance, the City disposes of and replaces this cart, rather than repairing it. However, savings are anticipated through an effective cart R&M program. Since carts would be repaired, this increases the useful life from approximately 7 years currently to 10 years. This scenario requires costs for cart parts/materials, two employees, two vehicles to use for traveling to cart locations, and associated vehicle fuel and repairs.

The Net Cost (Savings) for this scenario is shown below:

Scenario E - Cart Repairs & Maintenance		
	Current	with Cart R&M
Additional Staff Required	0	2
Additional Trucks Required	0	2
Annual Cart Cost	\$775,000	\$540,000
Annual Supply Cost	\$0	\$25,000
Annual Truck Cost	\$0	\$10,000
Annual Labor Cost	\$20,000	\$100,000
Annual Fuel Cost	\$0	\$5,000
R&M Cost	\$0	\$5,000
Total Estimated Cost	\$795,000	\$685,000
Total Estimated Cost (Savings)		(\$110,000)

However, the City should also consider contracting out its cart delivery and repair function. Many large public operations (example: City of Chicago) and large private haulers (WM, Republic, Waste Connections) utilize independent companies to repair carts, and manage their deliveries and inventory, as this is a very specialized service that utilizes proprietary technology to fix and repair carts. Specifically, this is an area of opportunity for the City to partner with a private operator of cart maintenance, repair, and delivery services. Many private large publicly traded and privately held companies as well as many public collection operations make use of this type of supplemental service to be provided by this niche service provider. Typically cart repairs can be performed efficiently with specialized, patented equipment utilized by these companies. This saves tens of thousands of dollars annually in repairs versus replacement. The vendors would also manage the warranty service provision of the cart manufacturers and make sure the city of Atlanta receives the full warranty for the carts delivered. This cart service line is one that can easily end up being a larger cost center than projected due to the movement of carts and conditions in the field,

2.7.7 Scenario F – Reduce Vehicle Downtime

The recommended useful life of a collection vehicle is approximately 7 years. The City currently has a fleet that averages more than 8 years in life, incurring additional repair and maintenance costs.

This scenario assumes that the City will follow a strict vehicle replacement plan for all of its fleet, minimizing the annual cost needed for repair and maintenance as the vehicles age. The scenario assumes that the average cost of annual repairs and maintenance per vehicle will reduce from \$23,000 to \$15,000 as the aging fleet is replaced. The savings are anticipated to average approximately \$1.4 million per year.

Scenario F - Reduce Vehicle Maintenance Expense

	Current	w Adequate Vehicle Replacements
Total VRP	\$4,575,000	\$5,200,000
Total R&M	\$6,075,000	\$4,025,000
Total Estimated Cost	\$10,650,000	\$9,225,000
Total Estimated Cost (Savings)		(\$1,425,000)

The City should perform an extensive audit of its maintenance and repair operations, emphasizing pre and post trip inspections for its fleet. The City will need to document how many road calls are occurring in first hour of operations, since this means defects were not caught by the driver or mechanic inspections. A program of listing common repairs should be established and a plan of focusing on those repairs should be emphasized for pre and post trip inspections, otherwise the savings anticipated herein will not likely be realized.

2.7.8 Scenario Summary

The table below represents a summary of the scenarios described and detailed above. It is highly important to note, this does NOT represent the actual annual net cost savings should all of these scenarios be combined.

Scenario Summary

Annual Net Cost (Savings)	Current	Proposed	Cost (Savings)
5-Day Week to 4-Day Week - MSW	\$5,030,000	\$5,815,000	\$785,000
5-Day Week to 4-Day Week - Yard Trimmings	\$4,795,000	\$5,140,000	\$345,000
Rear Load to Automated Side Load Vehicles - MSW	\$4,340,000	\$3,435,000	(\$905,000)
Rear Load to Automated Side Load Vehicles - Yard Trimmings	\$4,340,000	\$3,435,000	(\$905,000)
Weekly to Biweekly Yard Trimmings Collection	\$4,795,000	\$2,225,000	(\$2,570,000)
Loose Yard Trimmings to Carts/Automated Side Load Collection	\$4,880,000	\$4,430,000	(\$450,000)
Cart Repair & Maintenance Program	\$795,000	\$685,000	(\$110,000)
Reduce Vehicle Maintenance Expense	\$10,650,000	\$9,225,000	(\$1,425,000)
Total Scenario Cost (Savings)			(\$5,235,000)

The City will, at a minimum, need to determine the following:

- Which scenario/s will be implemented?
- In which fiscal year will each scenario be implemented?
- Are there potential staffing or operational synergies or complications from implementing various programs simultaneously?

Once these determinations have been made, the City can better analyze the operational changes and anticipated net cost or savings on an annual basis, which will affect the revenue adjustment plan required.

2.7.8.1 General Assumption Factors

The assumptions utilized here by SCS are taken from general solid waste industry collection practices and metrics. They are based on the “generally accepted” best industry practices that large scale public and private collection operations utilize. However, solid waste and recycling collection is a highly localized operation, with many significant environmental and geographical conditions that need to be factored into baseline operational metrics. While there are many metrics that that be evaluated across different operations, they need to be processed through the local environmental and geographical factors present in that specific operation. Each city is unique and these assessments and recommendations are based on general standards and practices. SCS would recommend that operational audits for routing data, collection efficiencies, safety, and maintenance practices be performed as the City of Atlanta considers these significant operational shifts in their practices. The City should consider the following:

- Perform route and billing audits during the process for delivery of carts to confirm and re-establish the levels of service at each household. (Applies to scenarios for cart repair or yard trimming collection in carts)
- Perform a complete maintenance audit to evaluate the significant costs currently associated with this cost center and evaluate operational changes that can work on preventative maintenance measures that can potentially reduce this cost.
- Develop operational metrics centered around collection efficiency and customer service that can help City tell their story about operational improvements that are being established with the pending operational changes.
- Host a series of neighborhood outreach meetings prior to the operational changes in the field to help anticipate potential misunderstandings or roadblocks to a smooth transition to new service requirements for City residents.
- Develop a pilot program for a small number of households (10%) that can be evaluated for any changes to the larger program implementation prior to the full-scale roll-out.

3.0 COST OF SERVICE ANALYSIS UPDATE

3.1 DESCRIPTION

The Cost of Service Analysis (COSA) performed for the solid waste utility uses the results of the RSA to allocate costs from DPW SWS's projected expenses to the City's functions and various customer classes. The costs were allocated into 25 cost center pools:

Garbage Collection	Multi-Family / Dumpster Collection
Backyard Collection Solid Waste	Yard Trimming Collection
Bulk Rubbish Collection	Bin Delivery Solid Waste
Yard Trimming Processing	Post-Closure Care
Recycling	Backyard Collection Recycling
Bin Delivery Recycling	Street Sweeping
Trash Receptacle Collection	Damaged Cart Replacements
Unsheltered Encampment Cleanup	Illegal Sign Removal
Dead Animal Collection	Right of Way Grass Mowing
Lot Clearing	Illegal Dumping
Solid Waste Education & Enforcement Team (SWEET)	Keep Atlanta Beautiful
Fortification	Community Cleanup
Special Event Cleanup	

3.2 SOURCE DATA

The following presents the key source financial data relied upon in conducting the COSA:

3.2.1 FY 2025 Projected Operating Expenses

The COSA uses the FY 2025 projected expenses from the RSA as the basis for the costs to be apportioned between the cost center pools. The operating expenditures include all O&M expenses (including personal services, fixed and variable operations and maintenance costs, transfers, and minor capital outlay), and debt service requirements related to the provision of solid waste service to the City's served residents and businesses.

3.2.2 Capital Improvement Program

The COSA includes the City's 5-year average cash funded capital costs from its CIP for FY 2024 – FY 2028 as provided by City staff and used in the RSA. The CIP, averaging about \$3.6 million during this period, consists of landfill closure activity, and facility repairs and upgrades.

3.3 ALLOCATION OF COSTS

Described below are the methods used to allocate expenses to cost center pools.

3.3.1 Direct Allocation

Where possible, costs were directly assigned to these cost center pools.

3.3.2 Indirect Allocation

In the case that items supported more than one cost pool, we attempt to identify proper allocation criteria to apportion the line item cost to each cost pool. For example, personal services costs are often allocated based upon the number of employees or based upon a workflow analysis of where each employee spends their time.

3.3.3 Staff Estimate

If certain cost items supported more than one cost pool but a specific allocation criterion could not be identified, we discussed with City staff the appropriate allocation percentages and used DPW SWS staff estimates or data provided by City staff to apportion the costs.

3.3.4 Weighted Average

For cost items that supported more than one cost pool, a specific allocation criterion could not be identified, and staff did not have an estimate as to the allocation percentage, the weighted average of the allocation of all other costs was used to allocate those costs. This weighted allocation is primarily used for administrative and overhead costs, as it is appropriate to allocate such costs based upon the weighted average of the allocation of all other costs for which they are responsible.

3.4 COSA RESULTS

In total, the City’s FY 2025 projected revenue requirement totaled approximately \$79.8 million. These costs are subject to change based on market conditions. The apportionment of expenses incurred by DPW SWS to each cost center pool are shown in **Figures 3 and 4**.

Figure 3. Cost of Service Summary – Solid Waste

Cost of Service Summary - Solid Waste

Service Fees	Expenses	%
Garbage Collection	\$ 17,170,618	29.7%
Yard Trimming Collection	\$ 10,043,384	17.4%
Recycling	\$ 8,103,010	14.0%
Post-Closure Care	\$ 7,454,217	12.9%
Multi-Family / Dumpster Collection	\$ 6,021,651	10.4%
Bulk Rubbish Collection	\$ 2,836,428	4.9%
Backyard Collection Solid Waste	\$ 2,685,027	4.6%
Yard Trimming Processing	\$ 2,119,782	3.7%
Backyard Collection Recycling	\$ 878,862	1.5%
Damaged Cart Replacements	\$ 477,778	0.8%
Total	\$ 57,790,758	100.0%

Figure 4. Cost of Service Summary – Special Services

Cost of Service Summary - Special Services

Service Fees	Expenses	%
Street Sweeping	\$ 8,247,694	37.3%
ROW Grass Mowing	\$ 4,143,100	18.7%
Trash Receptacle Collection	\$ 2,069,338	9.4%
Lot Clearing	\$ 1,836,599	8.3%
Keep Atlanta Beautiful	\$ 803,276	3.6%
Dead Animal Collection	\$ 738,173	3.3%
Illegal Dumping	\$ 722,938	3.3%
SWEET	\$ 694,007	3.1%
Special Event Cleanup	\$ 473,423	2.1%
Bin Delivery	\$ 940,809	4.3%
Community Cleanup	\$ 380,233	1.7%
Fortification	\$ 365,284	1.7%
Unsheltered Encampment Cleanups	\$ 365,284	1.7%
Illegal Sign Removal	\$ 326,808	1.5%
Damaged Cart Replacements	\$ 2,138	0.0%
Total	\$ 22,109,105	100.0%

**Data sources for the above two tables include FY 2025 expense projections from the revenue sufficiency analysis. Each line item is allocated to the City’s cost center pools (shown above). Methods of allocation include direct allocation, where costs were assigned to a direct cost center pool, indirect allocation, for example, personal services, employee hours, equipment cost, equipment hours or, weighted averages, if a specific allocation criterion could not be identified.

***In addition, these costs are recovered in various components of the solid waste rates and through General Fund payments to DPW SWS. The General Fund is to fund the cost of certain services and exemptions. The funding includes other revenue, which is comprised of approximately \$500,000 in City solid waste collection services, and \$1.8 million in tax exemptions (30% of the solid waste bills for exempted persons).

4.0 CONCLUSIONS & RECOMMENDATIONS

4.1 RECOMMENDATIONS

Based upon the results of the study described herein, SCS finds that the City's current rates are not sufficient to fund all of its ongoing operations, capital, and reserve requirements. Therefore, a financial management plan was developed for the City, including the recommended FY 2025 revenue adjustment presented in **Figure 5**.

Figure 5. FY 2025 Revenue Adjustment Recommendation

FY 2025 Revenue Adjustment Recommendation	
Revenue Adjustment %	FY 2025 3.50%

The recommended FY 2025 revenue adjustment of 3.50% is due to both internal and external factors. External factors include inflation impacting labor and assets and supply chain disruptions and internal factors include expenses exceeding revenues and not implementing recommended rate increases in prior years. In addition, the \$26.7 million in revenue for Special Services and Other Revenue will need to increase along with the above revenue adjustment plan each year.

It should be noted that the recommended revenue adjustment of 3.50% for FY 2025 is partially reflective of CPI, which currently exceeds 3%. It should be further noted that this study excludes future expenses for the following:

- Recent cost of living adjustments (COLA)
- Relocation of the Yard Waste Transfer Station
- Updating the Solid Waste Master Plan

To place the recommended revenue adjustment for solid waste collection services into context, Gwinnett County, GA implemented a 14% rate increase in FY 2024 and the City of Augusta, GA implemented a 38% rate increase in FY 2024. It is also important to note that the CPI for trash collections increased by 5.3% in February 2023.

Lastly, as a best practice and to reflect any operational changes undertaken by the City, SCS recommends that the City update the revenue sufficiency analysis portion of this study every 1-2 years to be sure that the recommended rate plan continues to be sufficient to fund the DPW SWS's operations while meeting all of its financial policies and goals.

Atlanta, GA
Solid Waste Revenue Sufficiency Analysis

Appendix A
Results as of Mar 21, 2024



- Schedule 1 - Model Results
- Schedule 2 - Model Assumptions & Inputs
- Schedule 3 - Trial Balances as of Jun 30, 2023
- Schedule 4 - Cash In
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- Schedule 10 - Vehicle Replacement Program
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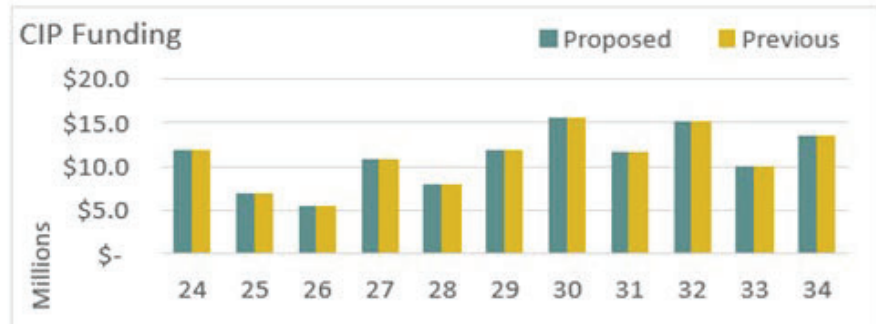
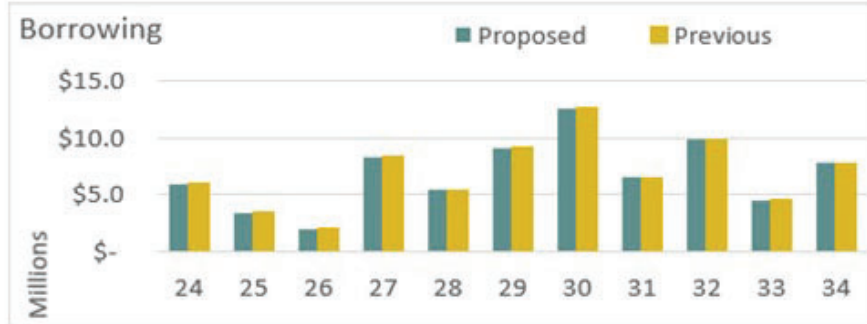
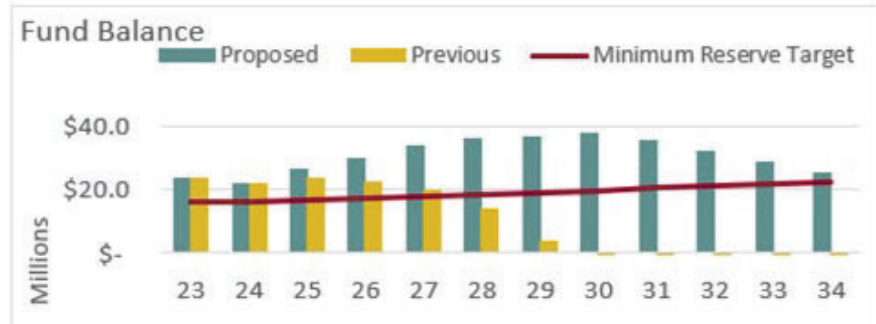
SCS ENGINEERS

Management Services

Schedule 1 - Model Results

Atlanta, GA
Solid Waste Revenue Sufficiency Analysis

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Revenue Adjustment (\$M)	\$0.00	\$2.82	\$1.68	\$1.73	\$1.78	\$1.83	\$1.89	\$1.94	\$2.00	\$2.06	\$2.12
Revenue Adjustment %	0.00%	3.50%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Revenue Adjustment % - Tax Rev	0.00%	3.50%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Previous Rate Adjustment %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Residential Solid Waste Rate	\$409.45	\$423.78	\$432.26	\$440.90	\$449.72	\$458.71	\$467.89	\$477.25	\$486.79	\$496.53	\$506.46



Schedule 2 - Model Assumptions & Inputs

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Rate Revenue Adjustments											
Rate Adjustment	0.00%	3.50%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Growth											
Change in Billed Parcels	1.78%	1.12%	1.26%	1.29%	1.40%	1.30%	1.33%	1.34%	1.35%	1.34%	1.34%
Working Capital Reserve Target											
Percent of Annual O&M Expense	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%
Cost Escalation Factors											
Salaries	N/A	3.06%	3.06%	3.06%	3.06%	3.06%	3.06%	3.06%	3.06%	3.06%	3.06%
O&M	N/A	3.58%	3.58%	3.58%	3.58%	3.58%	3.58%	3.58%	3.58%	3.58%	3.58%
CO	N/A	3.55%	3.55%	3.55%	3.55%	3.55%	3.55%	3.55%	3.55%	3.55%	3.55%
No Escalation	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Interest Assumptions											
Interest Earnings on Fund Balances	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%
CIP											
CIP Escalation	0.00%	3.41%	3.41%	3.41%	3.41%	3.41%	3.41%	3.41%	3.41%	3.41%	3.41%
Borrowing Assumptions											
Short-Term Debt Rate	2.45%	2.45%	2.45%	2.45%	2.45%	2.45%	2.45%	2.45%	2.45%	2.45%	2.45%
Short-Term Borrowing Assumptions											
Debt Svc Coverage	0.00										
Interest Only in 1st Year	N										
Term (Years)	6										
Debt Service Reserve (Years)	0										
Cost of Issuance	2.00%										

Schedule 3 - Trial Balances as of Jun 30, 2023

	Solid Waste	
	Services Fund	Solid Waste R&E Fund
Assets		
1119039-A/R - Solid Waste	\$ 43,412,669	-
1119301-Allowance-Uncollectible	(11,445,332)	-
Total Assets	\$ 31,967,337	-
Liabilities		
1211001-Ap Liabilities	\$ (2,874,639)	(114,963)
1211002-Uninvoiced Receipts	(1,600,150)	(892,857)
1211006-A/P Accrual	(3,296,216)	(2,525)
1212001-Accrued Salaries	(634,096)	-
Total Liabilities	\$ (8,405,100)	(1,010,345)
Net Assets	\$ 23,562,236	(1,010,345)
Total Available Fund Balance	\$ 23,562,236	(1,010,345)

Schedule 4 - Cash In

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Rate Revenues											
Solid Waste Collection											
Solid Waste Collections	\$ 53,244,155	55,723,878	57,554,374	59,464,894	61,505,366	63,551,041	65,687,273	67,902,143	70,196,855	72,558,056	75,004,235
Special Services	24,383,997	25,237,437	25,742,186	26,257,030	26,782,170	27,317,814	27,864,170	28,421,453	28,989,882	29,569,680	30,161,074
Other Revenue	2,304,662	2,385,325	2,433,032	2,481,692	2,531,326	2,581,953	2,633,592	2,686,264	2,739,989	2,794,789	2,850,684
Total Rate Revenues	\$ 79,932,814	83,346,641	85,729,591	88,203,616	90,818,862	93,450,808	96,185,035	99,009,860	101,926,726	104,922,524	108,015,993
Other Operating Revenues											
Penalties And Interest-Personal Prop Delinquent	\$ 1,041,983	1,090,510	1,126,333	1,163,722	1,203,654	1,243,687	1,285,493	1,328,838	1,373,745	1,419,954	1,467,825
Recycling, Paper	33,616	33,616	33,616	33,616	33,616	33,616	33,616	33,616	33,616	33,616	33,616
Total Other Operating Revenues	\$ 1,075,599	1,124,126	1,159,949	1,197,338	1,237,270	1,277,303	1,319,109	1,362,454	1,407,361	1,453,570	1,501,441
Interest Earnings											
Interest Earnings	\$ 56,887	59,976	69,885	79,082	86,778	90,431	92,200	90,821	83,730	75,656	67,411
Total Interest Earnings	\$ 56,887	59,976	69,885	79,082	86,778	90,431	92,200	90,821	83,730	75,656	67,411
Total Cash In	\$ 81,065,299	84,530,743	86,959,426	89,480,036	92,142,910	94,818,541	97,596,344	100,463,135	103,417,817	106,451,750	109,584,845

Schedule 5 - Cash Out

		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Personal Services Execution	Department											
Salaries, Regular	Exe Sustainability 01-Jun - 13	\$ 72,557	74,777	77,064	79,422	81,851	84,355	86,936	89,596	92,337	95,161	98,073
Gp Life Ins Cont-Emp	Exe Sustainability 01-Jun - 13	48	49	51	53	54	56	58	59	61	63	65
Gp Health Ins Cont.-Emp	Exe Sustainability 01-Jun - 13	10,152	10,463	10,783	11,113	11,452	11,803	12,164	12,536	12,920	13,315	13,722
Medicare Contribution	Exe Sustainability 01-Jun - 13	1,092	1,125	1,160	1,195	1,232	1,270	1,308	1,348	1,390	1,432	1,476
Defined Contribution	Exe Sustainability 01-Jun - 13	2,520	2,597	2,677	2,758	2,843	2,930	3,019	3,112	3,207	3,305	3,406
Deferred Comp 2011	Exe Sustainability 01-Jun - 13	36	37	38	39	41	42	43	44	46	47	49
Comp, Retention Bonus	AIM - Chief Information Officer	117	121	124	128	132	136	140	144	149	153	158
Salaries, Regular	AIM - IT Infrastructure	10,650	10,976	11,312	11,658	12,014	12,382	12,761	13,151	13,553	13,968	14,395
Gp Life Ins Cont-Emp	AIM - IT Infrastructure	12	12	13	13	14	14	14	15	15	16	16
Gp Health Ins Cont.-Emp	AIM - IT Infrastructure	1,524	1,571	1,619	1,668	1,719	1,772	1,826	1,882	1,939	1,999	2,060
Medicare Contribution	AIM - IT Infrastructure	180	186	191	197	203	209	216	222	229	236	243
Defined Contribution	AIM - IT Infrastructure	420	433	446	460	474	488	503	519	534	551	568
Salaries, Regular	DPW - Commissioner of Public Works	280,306	288,881	297,719	306,826	316,213	325,886	335,856	346,131	356,719	367,632	378,879
Gp Life Ins Cont-Emp	DPW - Commissioner of Public Works	180	186	191	197	203	209	216	222	229	236	243
Gp Health Ins Cont.-Emp	DPW - Commissioner of Public Works	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(3)	(3)	(3)
Medicare Contribution	DPW - Commissioner of Public Works	3,768	3,883	4,002	4,124	4,251	4,381	4,515	4,653	4,795	4,942	5,093
Defined Contribution	DPW - Commissioner of Public Works	8,700	8,966	9,240	9,523	9,814	10,115	10,424	10,743	11,072	11,410	11,759
Salaries, Regular	DPW - Public Works Administration	843,010	868,799	895,378	922,769	950,998	980,092	1,010,075	1,040,975	1,072,820	1,105,640	1,139,464
Gp Life Ins Cont-Emp	DPW - Public Works Administration	636	655	676	696	717	739	762	785	809	834	860
Gp Health Ins Cont.-Emp	DPW - Public Works Administration	90,753	93,529	96,391	99,339	102,378	105,510	108,738	112,065	115,493	119,026	122,667
Medicare Contribution	DPW - Public Works Administration	13,164	13,567	13,982	14,409	14,850	15,305	15,773	16,255	16,753	17,265	17,793
Pen Cont Gen Emp Pen Fd	DPW - Public Works Administration	141,528	145,858	150,320	154,918	159,658	164,542	169,576	174,763	180,110	185,619	191,298
Defined Contribution	DPW - Public Works Administration	25,764	26,552	27,364	28,202	29,064	29,953	30,870	31,814	32,787	33,790	34,824
Salaries, Regular	DPW - Safety & Risk Management	369,852	381,167	392,727	404,845	417,230	429,994	443,148	456,705	470,676	485,075	499,915
Overtime Expense	DPW - Safety & Risk Management	6,720	6,926	7,137	7,356	7,581	7,813	8,052	8,298	8,552	8,814	9,083
Gp Life Ins Cont-Emp	DPW - Safety & Risk Management	216	223	229	236	244	251	259	267	275	283	292
Gp Health Ins Cont.-Emp	DPW - Safety & Risk Management	51,294	52,863	54,480	56,147	57,865	59,635	61,459	63,339	65,277	67,274	69,332
Medicare Contribution	DPW - Safety & Risk Management	4,416	4,551	4,690	4,834	4,982	5,134	5,291	5,453	5,620	5,792	5,969
Pen Cont Gen Emp Pen Fd	DPW - Safety & Risk Management	71,244	73,424	75,670	77,985	80,370	82,829	85,363	87,974	90,666	93,439	96,298
Defined Contribution	DPW - Safety & Risk Management	7,788	8,026	8,272	8,525	8,786	9,054	9,331	9,617	9,911	10,214	10,527
Emp Reimb Wc Medical Exp	DPW - Safety & Risk Management	24	25	25	26	27	28	29	30	31	31	32
W/C - Service Providers	DPW - Safety & Risk Management	2,148	2,214	2,281	2,351	2,423	2,497	2,574	2,652	2,734	2,817	2,903
Salaries, Regular	DPW - Communications	109,529	112,880	116,333	119,892	123,560	127,339	131,235	135,250	139,387	143,652	148,046
Gp Life Ins Cont-Emp	DPW - Communications	168	173	178	184	190	195	201	207	214	220	227
Gp Health Ins Cont.-Emp	DPW - Communications	24,462	25,210	25,982	26,776	27,596	28,440	29,310	30,206	31,131	32,083	33,064
Medicare Contribution	DPW - Communications	3,564	3,673	3,785	3,901	4,021	4,144	4,270	4,401	4,536	4,674	4,817
Pen Cont Gen Emp Pen Fd	DPW - Communications	26,364	27,171	28,002	28,858	29,741	30,651	31,589	32,555	33,551	34,577	35,635
Defined Contribution	DPW - Communications	8,232	8,484	8,743	9,011	9,287	9,571	9,863	10,165	10,476	10,797	11,127
Gp Health Ins Cont.-Emp	DPW - Transportation Design	2,369	2,441	2,516	2,593	2,672	2,754	2,838	2,925	3,015	3,107	3,202
Salaries, Regular	DPW - Fleet Services Administration	63,100	65,030	67,020	69,070	71,183	73,361	75,605	77,918	80,302	82,758	85,290
Salaries, Regular	DPW - Solid Waste Administration	1,147,003	1,182,092	1,218,255	1,255,524	1,293,933	1,333,517	1,374,312	1,416,355	1,459,684	1,504,339	1,550,360
Overtime Expense	DPW - Solid Waste Administration	34,301	35,350	36,432	37,546	38,695	39,879	41,099	42,356	43,652	44,987	46,363
Overtime, Holiday-Regular	DPW - Solid Waste Administration	10,248	10,562	10,885	11,218	11,561	11,914	12,279	12,655	13,042	13,441	13,852
Gp Life Ins Cont-Emp	DPW - Solid Waste Administration	972	1,002	1,032	1,064	1,097	1,130	1,165	1,200	1,237	1,275	1,314
Gp Health Ins Cont.-Emp	DPW - Solid Waste Administration	118,377	121,998	125,731	129,577	133,541	137,626	141,837	146,176	150,647	155,256	160,006
Medicare Contribution	DPW - Solid Waste Administration	20,076	20,690	21,323	21,975	22,648	23,341	24,055	24,790	25,549	26,330	27,136
Pen Cont Gen Emp Pen Fd	DPW - Solid Waste Administration	162,072	167,030	172,140	177,406	182,833	188,426	194,191	200,132	206,254	212,564	219,066
Defined Contribution	DPW - Solid Waste Administration	37,560	38,709	39,893	41,114	42,371	43,668	45,004	46,380	47,799	49,261	50,768
Emp Reimb Wc Medical Exp	DPW - Solid Waste Administration	156	161	166	171	176	181	187	193	199	205	211
W/C - Service Providers	DPW - Solid Waste Administration	33,564	34,591	35,649	36,740	37,864	39,022	40,216	41,446	42,714	44,020	45,367
Salaries, Extra Help	DPW - Customer Service	15,459	15,932	16,419	16,921	17,439	17,973	18,522	19,089	19,673	20,275	20,895
Overtime Expense	DPW - Customer Service	4,536	4,675	4,818	4,965	5,117	5,274	5,435	5,601	5,773	5,949	6,131
Gp Life Ins Cont-Emp	DPW - Customer Service	96	99	102	105	108	112	115	119	122	126	130
Gp Health Ins Cont.-Emp	DPW - Customer Service	15,780	16,263	16,760	17,273	17,801	18,346	18,907	19,486	20,082	20,696	21,329
Medicare Contribution	DPW - Customer Service	2,004	2,065	2,128	2,194	2,261	2,330	2,401	2,475	2,550	2,628	2,709
Pen Cont Gen Emp Pen Fd	DPW - Customer Service	13,092	13,493	13,905	14,331	14,769	15,221	15,687	16,166	16,661	17,171	17,696
Defined Contribution	DPW - Customer Service	2,748	2,832	2,919	3,008	3,100	3,195	3,293	3,393	3,497	3,604	3,714
Salaries, Regular	DPW - Solid Waste Collection - Curbside	4,275,219	4,406,007	4,540,796	4,679,708	4,822,870	4,970,412	5,122,467	5,279,174	5,440,674	5,607,116	5,778,649
Salaries, Extra Help	DPW - Solid Waste Collection - Curbside	274,144	282,531	291,174	300,081	309,262	318,723	328,473	338,522	348,878	359,551	370,550
Gp Life Ins Cont-Emp	DPW - Solid Waste Collection - Curbside	2,532	2,609	2,689	2,772	2,856	2,944	3,034	3,127	3,224	3,321	3,422
Gp Health Ins Cont.-Emp	DPW - Solid Waste Collection - Curbside	722,077	744,167	766,932	790,394	814,574	839,494	865,176	891,643	918,920	947,032	976,004
Medicare Contribution	DPW - Solid Waste Collection - Curbside	52,332	53,933	55,583	57,283	59,036	60,842	62,703	64,621	66,598	68,635	70,735
Pen Cont Gen Emp Pen Fd	DPW - Solid Waste Collection - Curbside	508,296	523,846	539,871	556,387	573,408	590,950	609,028	627,660	646,861	666,650	687,044
Defined Contribution	DPW - Solid Waste Collection - Curbside	101,796	104,910	108,120	111,427	114,836	118,349	121,970	125,701	129,546	133,509	137,594
Worker Comp, Inc Pay	DPW - Solid Waste Collection - Curbside	131,080	135,090	139,223	143,482	147,871	152,395	157,057	161,862	166,813	171,915	177,176
Workers Comp, Ioj Pay	DPW - Solid Waste Collection - Curbside	8,424	8,682	8,947	9,221	9,503	9,794	10,093	10,402	10,720	11,048	11,386
Emp Reimb Wc Medical Exp	DPW - Solid Waste Collection - Curbside	1,896	1,954	2,014	2,075	2,139	2,204	2,272	2,341	2,413	2,487	2,563

Schedule 5 - Cash Out

		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
W/C - Service Providers	DPW - Solid Waste Collection - Curbside	306,348	315,720	325,378	335,332	345,591	356,163	367,059	378,288	389,861	401,787	414,079
Salaries, Regular	DPW - Solid Collection - Backyard	489,085	504,047	519,467	535,359	551,736	568,615	586,010	603,937	622,413	641,454	661,077
Salaries, Extra Help	DPW - Solid Collection - Backyard	5,000	5,153	5,311	5,473	5,640	5,813	5,991	6,174	6,363	6,558	6,758
Gp Life Ins Cont-Emp	DPW - Solid Collection - Backyard	420	433	446	460	474	488	503	519	534	551	568
Gp Health Ins Cont.-Emp	DPW - Solid Collection - Backyard	71,028	73,201	75,440	77,748	80,127	82,578	85,104	87,708	90,391	93,156	96,006
Medicare Contribution	DPW - Solid Collection - Backyard	8,736	9,003	9,279	9,563	9,855	10,157	10,467	10,787	11,117	11,458	11,808
Pen Cont Gen Emp Pen Fd	DPW - Solid Collection - Backyard	141,048	145,363	149,810	154,393	159,116	163,984	169,000	174,170	179,499	184,990	190,649
Defined Contribution	DPW - Solid Collection - Backyard	7,932	8,175	8,425	8,682	8,948	9,222	9,504	9,795	10,094	10,403	10,721
Deferred Comp 2011	DPW - Solid Collection - Backyard	-	-	-	-	-	-	-	-	-	-	-
Workers Comp, Ioj Pay	DPW - Solid Collection - Backyard	504	519	535	552	569	586	604	622	641	661	681
W/C - Service Providers	DPW - Solid Collection - Backyard	6,396	6,592	6,793	7,001	7,215	7,436	7,664	7,898	8,140	8,389	8,645
Salaries, Regular	DPW - Solid Collection - Multi-Family	322,022	331,873	342,026	352,489	363,273	374,386	385,839	397,643	409,808	422,344	435,265
Gp Life Ins Cont-Emp	DPW - Solid Collection - Multi-Family	276	284	293	302	311	321	331	341	351	362	373
Gp Health Ins Cont.-Emp	DPW - Solid Collection - Multi-Family	78,918	81,332	83,820	86,385	89,027	91,751	94,558	97,450	100,432	103,504	106,670
Medicare Contribution	DPW - Solid Collection - Multi-Family	5,688	5,862	6,041	6,226	6,417	6,613	6,815	7,024	7,239	7,460	7,688
Pen Cont Gen Emp Pen Fd	DPW - Solid Collection - Multi-Family	91,824	94,633	97,528	100,512	103,587	106,755	110,021	113,387	116,856	120,431	124,115
Defined Contribution	DPW - Solid Collection - Multi-Family	6,996	7,210	7,431	7,658	7,892	8,134	8,382	8,639	8,903	9,176	9,456
Worker Comp, Inc Pay	DPW - Solid Collection - Multi-Family	83,493	86,047	88,680	91,392	94,188	97,070	100,039	103,100	106,254	109,504	112,854
Emp Reimb Wc Medical Exp	DPW - Solid Collection - Multi-Family	9,588	9,881	10,184	10,495	10,816	11,147	11,488	11,840	12,202	12,575	12,960
W/C - Service Providers	DPW - Solid Collection - Multi-Family	190,836	196,674	202,691	208,891	215,282	221,868	228,655	235,650	242,859	250,289	257,946
Salaries, Regular	DPW - Bulk Rubbish Collections	701,109	722,557	744,662	767,443	790,920	815,116	840,052	865,751	892,236	919,532	947,662
Salaries, Extra Help	DPW - Bulk Rubbish Collections	60,000	61,836	63,727	65,677	67,686	69,757	71,891	74,090	76,356	78,692	81,100
Gp Life Ins Cont-Emp	DPW - Bulk Rubbish Collections	540	557	574	591	609	628	647	667	687	708	730
Gp Health Ins Cont.-Emp	DPW - Bulk Rubbish Collections	142,047	146,393	150,871	155,486	160,243	165,145	170,197	175,404	180,770	186,300	191,999
Medicare Contribution	DPW - Bulk Rubbish Collections	11,088	11,427	11,777	12,137	12,508	12,891	13,285	13,692	14,111	14,542	14,987
Pen Cont Gen Emp Pen Fd	DPW - Bulk Rubbish Collections	179,004	184,480	190,124	195,940	201,934	208,112	214,478	221,040	227,802	234,771	241,953
Defined Contribution	DPW - Bulk Rubbish Collections	16,392	16,893	17,410	17,943	18,492	19,057	19,641	20,241	20,861	21,499	22,156
Worker Comp, Inc Pay	DPW - Bulk Rubbish Collections	4,091	4,216	4,345	4,478	4,615	4,756	4,902	5,052	5,206	5,366	5,530
W/C - Service Providers	DPW - Bulk Rubbish Collections	48,336	49,815	51,339	52,909	54,528	56,196	57,915	59,687	61,513	63,395	65,334
Gp Life Ins Cont-Emp	Solid Waste Public Education	59	61	63	65	67	69	71	73	75	77	80
Gp Health Ins Cont.-Emp	Solid Waste Public Education	14,874	15,329	15,798	16,282	16,780	17,293	17,822	18,367	18,929	19,508	20,105
Medicare Contribution	Solid Waste Public Education	1,447	1,491	1,537	1,584	1,633	1,682	1,734	1,787	1,842	1,898	1,956
Pen Cont Gen Emp Pen Fd	Solid Waste Public Education	6,463	6,661	6,865	7,075	7,291	7,514	7,744	7,981	8,225	8,477	8,736
Defined Contribution	Solid Waste Public Education	3,822	3,939	4,060	4,184	4,312	4,444	4,580	4,720	4,864	5,013	5,166
W/C - Service Providers	Solid Waste Public Education	3,000	3,092	3,186	3,284	3,384	3,488	3,595	3,704	3,818	3,935	4,055
Salaries, Extra Help	DPW - Yard Trimming Collections	95,516	98,438	101,449	104,553	107,751	111,048	114,445	117,946	121,554	125,273	129,105
Overtime Expense	DPW - Yard Trimming Collections	219,252	225,959	232,872	239,996	247,338	254,905	262,703	270,739	279,022	287,558	296,354
Overtime, Holiday-Regular	DPW - Yard Trimming Collections	45,336	46,723	48,152	49,625	51,143	52,708	54,321	55,982	57,695	59,460	61,279
Gp Life Ins Cont-Emp	DPW - Yard Trimming Collections	1,536	1,583	1,631	1,681	1,733	1,786	1,840	1,897	1,955	2,015	2,076
Gp Health Ins Cont.-Emp	DPW - Yard Trimming Collections	370,901	382,248	393,941	405,993	418,413	431,213	444,405	458,000	472,011	486,451	501,333
Medicare Contribution	DPW - Yard Trimming Collections	31,872	32,847	33,852	34,887	35,955	37,055	38,188	39,357	40,561	41,801	43,080
Pen Cont Gen Emp Pen Fd	DPW - Yard Trimming Collections	414,800	427,490	440,567	454,045	467,935	482,251	497,004	512,208	527,877	544,026	560,669
Defined Contribution	DPW - Yard Trimming Collections	57,108	58,855	60,656	62,511	64,423	66,394	68,425	70,519	72,676	74,899	77,191
Worker Comp, Inc Pay	DPW - Yard Trimming Collections	114,092	117,582	121,179	124,887	128,707	132,644	136,702	140,884	145,194	149,636	154,214
Workers Comp, Ioj Pay	DPW - Yard Trimming Collections	16,440	16,943	17,461	17,995	18,546	19,113	19,698	20,301	20,922	21,562	22,221
Emp Reimb Wc Medical Exp	DPW - Yard Trimming Collections	48	49	51	53	54	56	58	59	61	63	65
W/C - Service Providers	DPW - Yard Trimming Collections	83,340	85,890	88,517	91,225	94,016	96,892	99,856	102,911	106,059	109,304	112,647
Salaries, Regular	DPW - Yard Trimming Processing	397,203	409,354	421,877	434,783	448,084	461,792	475,919	490,479	505,483	520,947	536,884
Overtime Expense	DPW - Yard Trimming Processing	69,000	71,111	73,286	75,528	77,839	80,220	82,674	85,203	87,810	90,496	93,265
Overtime, Holiday-Regular	DPW - Yard Trimming Processing	8,784	9,053	9,330	9,615	9,909	10,212	10,525	10,847	11,179	11,521	11,873
Gp Life Ins Cont-Emp	DPW - Yard Trimming Processing	144	148	153	158	162	167	173	178	183	189	195
Gp Health Ins Cont.-Emp	DPW - Yard Trimming Processing	47,349	48,798	50,290	51,829	53,414	55,048	56,732	58,468	60,257	62,100	64,000
Medicare Contribution	DPW - Yard Trimming Processing	3,060	3,154	3,250	3,350	3,452	3,558	3,666	3,779	3,894	4,013	4,136
Pen Cont Gen Emp Pen Fd	DPW - Yard Trimming Processing	49,416	50,928	52,486	54,091	55,746	57,452	59,209	61,020	62,887	64,811	66,794
Defined Contribution	DPW - Yard Trimming Processing	1,092	1,125	1,160	1,195	1,232	1,270	1,308	1,348	1,390	1,432	1,476
Worker Comp, Inc Pay	DPW - Yard Trimming Processing	10,379	10,697	11,024	11,361	11,709	12,067	12,436	12,816	13,208	13,612	14,029
Workers Comp, Ioj Pay	DPW - Yard Trimming Processing	1,788	1,843	1,899	1,957	2,017	2,079	2,142	2,208	2,275	2,345	2,417
W/C - Service Providers	DPW - Yard Trimming Processing	22,740	23,436	24,153	24,891	25,653	26,438	27,247	28,080	28,939	29,824	30,737
Salaries, Regular	DPW - Landfill Closure & Post Closure	177,447	182,875	188,470	194,236	200,178	206,302	212,613	219,117	225,820	232,729	239,848
Overtime Expense	DPW - Landfill Closure & Post Closure	34,025	35,066	36,139	37,244	38,384	39,558	40,768	42,015	43,300	44,625	45,990
Overtime, Holiday-Regular	DPW - Landfill Closure & Post Closure	6,060	6,245	6,436	6,633	6,836	7,045	7,261	7,483	7,712	7,948	8,191
Gp Life Ins Cont-Emp	DPW - Landfill Closure & Post Closure	108	111	115	118	122	126	129	133	137	142	146
Gp Health Ins Cont.-Emp	DPW - Landfill Closure & Post Closure	31,569	32,535	33,530	34,556	35,613	36,702	37,825	38,982	40,175	41,404	42,671
Medicare Contribution	DPW - Landfill Closure & Post Closure	2,304	2,374	2,447	2,522	2,599	2,679	2,761	2,845	2,932	3,022	3,114
Pen Cont Gen Emp Pen Fd	DPW - Landfill Closure & Post Closure	37,200	38,338	39,511	40,720	41,965	43,249	44,572	45,936	47,341	48,789	50,282
Defined Contribution	DPW - Landfill Closure & Post Closure	3,264	3,364	3,467	3,573	3,682	3,795	3,911	4,030	4,154	4,281	4,412
Gp Health Ins Cont.-Emp	DPW - Disposal - Landfill	7,890	8,131	8,380	8,636	8,901	9,173	9,454	9,743	10,041	10,348	10,665
Salaries, Regular	DPW - Recycling & Collection	1,912,269	1,970,769	2,031,059	2,093,193	2,157,229	2,223,223	2,291,236	2,361,329	2,433,567	2,508,015	2,584,740
Salaries, Extra Help	DPW - Recycling & Collection	105,996	109,239	112,580	116,025	119,574	123,232	127,002	130,887	134,891	139,018	143,271

Schedule 5 - Cash Out

		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Overtime Expense	DPW - Recycling & Collection	592,092	610,205	628,873	648,111	667,938	688,372	709,431	731,134	753,501	776,552	800,308
Overtime, Holiday-Regular	DPW - Recycling & Collection	99,996	103,055	106,208	109,457	112,805	116,256	119,813	123,478	127,256	131,149	135,161
Gp Life Ins Cont-Emp	DPW - Recycling & Collection	1,212	1,249	1,287	1,327	1,367	1,409	1,452	1,497	1,542	1,590	1,638
Gp Health Ins Cont.-Emp	DPW - Recycling & Collection	347,231	357,854	368,801	380,083	391,711	403,694	416,044	428,772	441,889	455,407	469,339
Medicare Contribution	DPW - Recycling & Collection	25,224	25,996	26,791	27,611	28,455	29,326	30,223	31,147	32,100	33,082	34,094
Pen Cont Gen Emp Pen Fd	DPW - Recycling & Collection	307,364	316,767	326,457	336,444	346,737	357,344	368,276	379,543	391,154	403,120	415,452
Defined Contribution	DPW - Recycling & Collection	40,848	42,098	43,385	44,713	46,081	47,490	48,943	50,440	51,983	53,574	55,213
Worker Comp, Inc Pay	DPW - Recycling & Collection	3,769	3,884	4,003	4,126	4,252	4,382	4,516	4,654	4,796	4,943	5,094
Workers Comp, Ioj Pay	DPW - Recycling & Collection	15,660	16,139	16,633	17,142	17,666	18,206	18,763	19,337	19,929	20,539	21,167
Emp Reimb Wc Medical Exp	DPW - Recycling & Collection	216	223	229	236	244	251	259	267	275	283	292
W/C - Service Providers	DPW - Recycling & Collection	37,464	38,610	39,791	41,009	42,263	43,556	44,888	46,262	47,677	49,135	50,639
Gp Life Ins Cont-Emp	DPW - Street Cleaning - Mechanical	115	118	122	125	129	133	137	141	146	150	155
Gp Health Ins Cont.-Emp	DPW - Street Cleaning - Mechanical	22,879	23,579	24,300	25,044	25,810	26,599	27,413	28,252	29,116	30,007	30,925
Medicare Contribution	DPW - Street Cleaning - Mechanical	2,997	3,089	3,183	3,281	3,381	3,484	3,591	3,701	3,814	3,931	4,051
Pen Cont Gen Emp Pen Fd	DPW - Street Cleaning - Mechanical	14,814	15,267	15,734	16,216	16,712	17,223	17,750	18,293	18,853	19,429	20,024
Defined Contribution	DPW - Street Cleaning - Mechanical	3,692	3,805	3,921	4,041	4,165	4,292	4,423	4,559	4,698	4,842	4,990
Worker Comp, Inc Pay	DPW - Street Cleaning - Mechanical	6,880	7,090	7,307	7,531	7,761	7,999	8,243	8,496	8,756	9,023	9,299
Workers Comp, Ioj Pay	DPW - Street Cleaning - Mechanical	1,392	1,435	1,478	1,524	1,570	1,618	1,668	1,719	1,771	1,826	1,882
W/C - Service Providers	DPW - Street Cleaning - Mechanical	13,223	13,628	14,045	14,474	14,917	15,373	15,844	16,328	16,828	17,343	17,873
Gp Life Ins Cont-Emp	DPW - Street Cleaning - Manual	175	181	186	192	198	204	210	216	223	230	237
Gp Health Ins Cont.-Emp	DPW - Street Cleaning - Manual	39,096	40,292	41,524	42,795	44,104	45,453	46,843	48,276	49,753	51,275	52,844
Medicare Contribution	DPW - Street Cleaning - Manual	4,042	4,165	4,293	4,424	4,559	4,699	4,842	4,991	5,143	5,301	5,463
Pen Cont Gen Emp Pen Fd	DPW - Street Cleaning - Manual	21,458	22,114	22,791	23,488	24,206	24,947	25,710	26,497	27,307	28,143	29,004
Defined Contribution	DPW - Street Cleaning - Manual	7,026	7,241	7,462	7,690	7,926	8,168	8,418	8,676	8,941	9,214	9,496
Workers Comp, Ioj Pay	DPW - Street Cleaning - Manual	2,188	2,255	2,324	2,395	2,469	2,544	2,622	2,702	2,785	2,870	2,958
Gp Life Ins Cont-Emp	DPW - Trash Troopers	336	346	357	368	379	391	403	415	428	441	454
Gp Health Ins Cont.-Emp	DPW - Trash Troopers	44,289	45,644	47,041	48,480	49,963	51,491	53,066	54,690	56,363	58,087	59,864
Medicare Contribution	DPW - Trash Troopers	7,306	7,529	7,759	7,997	8,241	8,494	8,753	9,021	9,297	9,582	9,875
Pen Cont Gen Emp Pen Fd	DPW - Trash Troopers	38,220	39,389	40,594	41,836	43,116	44,435	45,795	47,196	48,639	50,127	51,661
Defined Contribution	DPW - Trash Troopers	10,571	10,894	11,228	11,571	11,925	12,290	12,666	13,053	13,453	13,864	14,288
Worker Comp, Inc Pay	DPW - Trash Troopers	4,974	5,126	5,283	5,445	5,611	5,783	5,960	6,142	6,330	6,524	6,723
Workers Comp, Ioj Pay	DPW - Trash Troopers	7,757	7,994	8,238	8,490	8,750	9,018	9,294	9,578	9,871	10,173	10,484
Emp Reimb Wc Medical Exp	DPW - Trash Troopers	60	62	64	66	68	70	72	74	76	79	81
W/C - Service Providers	DPW - Trash Troopers	26,887	27,710	28,558	29,431	30,332	31,259	32,216	33,201	34,217	35,264	36,343
Gp Life Ins Cont-Emp	DPW - Street Cleaning - Center 2 Water & Sewer	6	6	7	7	7	7	7	8	8	8	8
Gp Health Ins Cont.-Emp	DPW - Street Cleaning - Center 2 Water & Sewer	1,581	1,629	1,679	1,731	1,784	1,838	1,894	1,952	2,012	2,074	2,137
Medicare Contribution	DPW - Street Cleaning - Center 2 Water & Sewer	294	303	312	322	332	342	353	363	374	386	398
Pen Cont Gen Emp Pen Fd	DPW - Street Cleaning - Center 2 Water & Sewer	(648)	(668)	(688)	(709)	(731)	(753)	(777)	(800)	(825)	(850)	(876)
Defined Contribution	DPW - Street Cleaning - Center 2 Water & Sewer	195	201	207	213	220	226	233	240	248	255	263
Gp Life Ins Cont-Ret	NDP - Pensioners & Dependent Expenses	27,696	28,543	29,416	30,316	31,244	32,200	33,185	34,200	35,246	36,324	37,436
Gp Health Ins Cont-Ret	NDP - Pensioners & Dependent Expenses	1,482,301	1,527,648	1,574,382	1,622,545	1,672,182	1,723,338	1,776,058	1,830,391	1,886,387	1,944,095	2,003,569
Vendor Comm Fee Rev Coll	NDP - Fulton County	5,400	5,565	5,735	5,911	6,092	6,278	6,470	6,668	6,872	7,082	7,299
Comp, Retention Bonus	DHR - Commissioner of Human Resources	858	884	911	939	968	998	1,028	1,059	1,092	1,125	1,160
Salaries, Regular	DHR - Human Resources Management	425,294	438,305	451,713	465,532	479,774	494,451	509,577	525,166	541,232	557,790	574,854
Salaries, Extra Help	DHR - Human Resources Management	2,675	2,757	2,841	2,928	3,018	3,110	3,205	3,303	3,404	3,508	3,616
Overtime Expense	DHR - Human Resources Management	1,296	1,336	1,377	1,419	1,462	1,507	1,553	1,600	1,649	1,700	1,752
Gp Life Ins Cont-Emp	DHR - Human Resources Management	312	322	331	342	352	363	374	385	397	409	422
Gp Health Ins Cont.-Emp	DHR - Human Resources Management	44,124	45,474	46,865	48,299	49,776	51,299	52,868	54,486	56,153	57,870	59,641
Medicare Contribution	DHR - Human Resources Management	6,408	6,604	6,806	7,014	7,229	7,450	7,678	7,913	8,155	8,404	8,661
Pen Cont Gen Emp Pen Fd	DHR - Human Resources Management	41,832	43,112	44,431	45,790	47,191	48,634	50,122	51,655	53,236	54,864	56,543
Defined Contribution	DHR - Human Resources Management	14,592	15,038	15,498	15,973	16,461	16,965	17,484	18,019	18,570	19,138	19,723
Deferred Comp 2011	DHR - Human Resources Management	180	186	191	197	203	209	216	222	229	236	243
Worker Comp, Inc Pay	DHR - Human Resources Management	1,086	1,119	1,153	1,189	1,225	1,263	1,301	1,341	1,382	1,424	1,468
W/C - Service Providers	DHR - Human Resources Management	11	11	12	12	12	13	13	14	14	14	15
Salaries, Regular	COA Customer Service	544,052	560,696	577,849	595,526	613,744	632,520	651,870	671,812	692,364	713,545	735,374
Comp, Retention Bonus	COA Customer Service	1,394	1,437	1,481	1,526	1,573	1,621	1,670	1,721	1,774	1,828	1,884
Overtime Expense	COA Customer Service	138	142	147	151	156	160	165	170	176	181	187
Gp Life Ins Cont-Emp	COA Customer Service	396	408	421	433	447	460	474	489	504	519	535
Gp Health Ins Cont.-Emp	COA Customer Service	117,276	120,864	124,561	128,372	132,299	136,346	140,517	144,816	149,246	153,812	158,517
Medicare Contribution	COA Customer Service	8,196	8,447	8,705	8,971	9,246	9,529	9,820	10,121	10,430	10,749	11,078
Pen Cont Gen Emp Pen Fd	COA Customer Service	105,732	108,967	112,300	115,736	119,276	122,925	126,686	130,561	134,555	138,672	142,914
Defined Contribution	COA Customer Service	16,572	17,079	17,601	18,140	18,695	19,267	19,856	20,464	21,090	21,735	22,400
Deferred Comp 2011	COA Customer Service	228	235	242	250	257	265	273	282	290	299	308
Salaries, Regular	Administration	74,359	76,634	78,978	81,394	83,884	86,451	89,095	91,821	94,630	97,525	100,508
Comp, Retention Bonus	Administration	103	106	109	113	116	120	123	127	131	135	139
Gp Life Ins Cont-Emp	Administration	60	62	64	66	68	70	72	74	76	79	81
Gp Health Ins Cont.-Emp	Administration	5,076	5,231	5,391	5,556	5,726	5,901	6,082	6,268	6,460	6,657	6,861
Medicare Contribution	Administration	1,116	1,150	1,185	1,222	1,259	1,297	1,337	1,378	1,420	1,464	1,508
Defined Contribution	Administration	2,592	2,671	2,753	2,837	2,924	3,013	3,106	3,201	3,299	3,400	3,504

Schedule 5 - Cash Out

		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Repair & Maintenance-Equipment	AIM - IT Administration	99,999	103,058	106,211	109,460	112,809	116,260	119,816	123,482	127,259	131,153	135,165
Salaries, Regular	AIM - IT Applications	20,525	21,153	21,800	22,467	23,154	23,863	24,593	25,345	26,120	26,919	27,743
Gp Life Ins Cont-Emp	AIM - IT Applications	12	12	13	13	14	14	14	15	15	16	16
Gp Health Ins Cont.-Emp	AIM - IT Applications	2,028	2,090	2,154	2,220	2,288	2,358	2,430	2,504	2,581	2,660	2,741
Medicare Contribution	AIM - IT Applications	312	322	331	342	352	363	374	385	397	409	422
Defined Contribution	AIM - IT Applications	720	742	765	788	812	837	863	889	916	944	973
Deferred Comp 2011	AIM - IT Applications	12	12	13	13	14	14	14	15	15	16	16
Overtime Expense	DOF - Chief Financial Officer	1,029	1,060	1,093	1,126	1,161	1,196	1,233	1,271	1,310	1,350	1,391
Worker Comp, Inc Pay	DOF - Chief Financial Officer	696	717	739	762	785	809	834	859	886	913	941
W/C - Service Providers	DOF - Chief Financial Officer	13,387	13,797	14,219	14,654	15,102	15,564	16,040	16,531	17,036	17,558	18,095
Deferred Comp 2011	Administration	36	37	38	39	41	42	43	44	46	47	49
Salaries, Regular	Fund 1001	5,695,014	5,869,236	6,048,788	6,233,833	6,424,539	6,621,079	6,823,632	7,032,381	7,247,516	7,469,232	7,697,731
CompTime COVID-19	Fund 1001	90,000	92,753	95,591	98,515	101,529	104,635	107,836	111,135	114,535	118,038	121,650
ARP Premium Pay	Fund 1001	130,772	134,773	138,896	143,145	147,524	152,037	156,688	161,481	166,421	171,513	176,759
Salaries, Extra Help	Fund 1001	109,616	112,969	116,425	119,987	123,658	127,441	131,339	135,357	139,498	143,766	148,164
Overtime Expense	Fund 1001	370,984	382,333	394,030	406,084	418,507	431,310	444,504	458,103	472,117	486,560	501,445
Overtime, Holiday-Regular	Fund 1001	336,818	347,122	357,741	368,685	379,964	391,588	403,567	415,913	428,637	441,758	455,264
Gp Life Ins Cont-Emp	Fund 1001	101,547	104,654	107,855	111,155	114,555	118,060	121,671	125,393	129,229	133,183	137,257
Gp Health Ins Cont.-Emp	Fund 1001	1,300,338	1,340,118	1,381,115	1,423,366	1,466,910	1,511,786	1,558,034	1,605,698	1,654,819	1,705,444	1,757,617
Medicare Contribution	Fund 1001	93,225	96,077	99,016	102,045	105,167	108,384	111,700	115,117	118,639	122,268	126,009
Pen Cont Gen Emp Pen Fd	Fund 1001	1,225,636	1,263,131	1,301,773	1,341,596	1,382,639	1,424,936	1,468,528	1,513,454	1,559,753	1,607,469	1,656,645
Defined Contribution	Fund 1001	97,451	100,432	103,505	106,671	109,934	113,297	116,763	120,336	124,017	127,811	131,721
Deferred Comp 2011	Fund 1001	888	915	943	972	1,002	1,032	1,064	1,097	1,130	1,165	1,200
Worker Comp, Inc Pay	Fund 1001	100,379	103,450	106,615	109,876	113,237	116,702	120,272	123,951	127,743	131,651	135,678
Workers Comp, loj Pay	Fund 1001	24,240	24,982	25,746	26,533	27,345	28,182	29,044	29,932	30,848	31,792	32,764
Emp Reimb Wc Medical Exp	Fund 1001	394	406	418	431	444	458	472	487	501	517	533
W/C - Service Providers	Fund 1001	182,423	188,004	193,755	199,682	205,791	212,087	218,575	225,262	232,153	239,255	246,574
Subtotal Personal Services Execution		\$ 32,035,376	33,015,404	34,025,414	35,066,321	36,139,073	37,244,642	38,384,032	39,558,279	40,768,449	42,015,640	43,300,986
Personal Services Execution Execution		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total Personal Services Execution		\$ 32,035,376	33,015,404	34,025,414	35,066,321	36,139,073	37,244,642	38,384,032	39,558,279	40,768,449	42,015,640	43,300,986
Fixed Operations & Maintenance Execution												
Postage Expense	Exe Sustainability 01-Jun - 13	\$ 12	12	13	13	14	14	15	15	16	16	17
Business Travel / Per Diem	Exe Sustainability 01-Jun - 13	252	261	270	280	290	300	311	322	334	346	358
Training Travel / Per Diem	Exe Sustainability 01-Jun - 13	1,473	1,526	1,580	1,637	1,696	1,756	1,819	1,884	1,952	2,022	2,094
Education And Train	Exe Sustainability 01-Jun - 13	24	25	26	27	28	29	30	31	32	33	34
Service Grants	Exe Sustainability 01-Jun - 13	36	37	39	40	41	43	44	46	48	49	51
Consulting / Professional Services-Technical	AIM - IT Applications	574,498	595,070	616,379	638,450	661,312	684,993	709,522	734,929	761,245	788,504	816,740
Consulting / Professional Services-Technical	AIM - IT Network Management	(235,560)	(243,995)	(252,732)	(261,782)	(271,156)	(280,866)	(290,923)	(301,341)	(312,132)	(323,309)	(334,886)
Consulting / Professional Services-Technical	AIM - IT Server Management	235,560	243,995	252,732	261,782	271,156	280,866	290,923	301,341	312,132	323,309	334,886
Consulting / Professional Services-Technical	DOF - Chief Financial Officer	145,206	150,406	155,791	161,370	167,149	173,134	179,334	185,755	192,407	199,297	206,433
Supplies, Consumable	DOF - Revenue & Collections	67	69	72	74	77	80	83	86	89	92	95
Consulting / Professional Services	DOF - Billings	75,543	78,248	81,050	83,952	86,959	90,072	93,298	96,639	100,099	103,684	107,396
Consulting / Professional Services-Technical	DOF - Billings	77,028	79,786	82,643	85,603	88,668	91,843	95,132	98,538	102,067	105,722	109,507
Repair & Maintenance-Equipment	DOF - Billings	3,600	3,729	3,862	4,001	4,144	4,292	4,446	4,605	4,770	4,941	5,118
Supplies, Consumable	DOF - Billings	1,212	1,255	1,300	1,347	1,395	1,445	1,497	1,550	1,606	1,663	1,723
Software (\$1,000-4,999)	DOF - Billings	804	833	863	894	925	959	993	1,029	1,065	1,103	1,143
Consulting / Professional Services	DOF - Payment Processing	108	112	116	120	124	129	133	138	143	148	154
Postage Expense	DPW - Commissioner of Public Works	7,212	7,470	7,738	8,015	8,302	8,599	8,907	9,226	9,556	9,899	10,253
Printing & Binding	DPW - Commissioner of Public Works	2,000	2,072	2,146	2,223	2,302	2,385	2,470	2,559	2,650	2,745	2,843
Business Travel / Per Diem	DPW - Commissioner of Public Works	15,429	15,981	16,554	17,147	17,761	18,397	19,055	19,738	20,444	21,176	21,935
Training Travel / Per Diem	DPW - Commissioner of Public Works	12,636	13,088	13,557	14,043	14,545	15,066	15,606	16,165	16,743	17,343	17,964
Education And Train	DPW - Commissioner of Public Works	228	236	245	253	262	272	282	292	302	313	324
Training / Registration	DPW - Commissioner of Public Works	1,791	1,855	1,922	1,991	2,062	2,136	2,212	2,292	2,374	2,459	2,547
Supplies, Consumable	DPW - Commissioner of Public Works	15,724	16,287	16,870	17,474	18,100	18,748	19,420	20,115	20,835	21,581	22,354
Consulting / Professional Services	DPW - Public Works Administration	9,456	9,795	10,145	10,509	10,885	11,275	11,678	12,097	12,530	12,978	13,443
Printing & Binding	DPW - Public Works Administration	648	671	695	720	746	773	800	829	859	889	921
Training / Registration	DPW - Public Works Administration	1,540	1,595	1,652	1,712	1,773	1,836	1,902	1,970	2,041	2,114	2,190
Training Travel / Per Diem	DPW - Safety & Risk Management	1,188	1,231	1,275	1,320	1,368	1,416	1,467	1,520	1,574	1,631	1,689
Memberships	DPW - Safety & Risk Management	60	62	64	67	69	72	74	77	80	82	85
Training / Registration	DPW - Safety & Risk Management	1,300	1,347	1,395	1,445	1,496	1,550	1,606	1,663	1,723	1,784	1,848
Supplies, Consumable	DPW - Safety & Risk Management	10,000	10,358	10,729	11,113	11,511	11,923	12,350	12,793	13,251	13,725	14,217
Consulting / Professional Services-Technical	DPW - Communications	9,000	9,322	9,656	10,002	10,360	10,731	11,115	11,513	11,926	12,353	12,795
Printing & Binding	DPW - Communications	1,168	1,210	1,253	1,298	1,344	1,392	1,442	1,494	1,547	1,603	1,660
Memberships	DPW - Communications	996	1,032	1,069	1,107	1,147	1,188	1,230	1,274	1,320	1,367	1,416
Consulting / Professional Services	DPW - Solid Waste Administration	1,852,260	1,918,587	1,987,289	2,058,451	2,132,161	2,208,511	2,287,594	2,369,510	2,454,359	2,542,246	2,633,280
Litigation Exp	DPW - Solid Waste Administration	17,148	17,762	18,398	19,057	19,739	20,446	21,178	21,937	22,722	23,536	24,379
Consulting / Professional Services-Technical	DPW - Solid Waste Administration	280,667	290,717	301,127	311,910	323,079	334,648	346,631	359,044	371,900	385,218	399,012

Schedule 5 - Cash Out

		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Repair & Maintenance-Building	DPW - Solid Waste Administration	234,996	243,411	252,127	261,155	270,507	280,193	290,227	300,619	311,384	322,534	334,084
Repair & Maintenance-Other	DPW - Solid Waste Administration	21,600	22,373	23,175	24,004	24,864	25,754	26,677	27,632	28,621	29,646	30,708
Operating Lease/Rental-Land	DPW - Solid Waste Administration	37,488	38,830	40,221	41,661	43,153	44,698	46,299	47,957	49,674	51,453	53,295
Operating Lease/Rental-Building	DPW - Solid Waste Administration	35,700	36,978	38,303	39,674	41,095	42,566	44,091	45,669	47,305	48,999	50,753
Operating Lease/Rental-Equipment	DPW - Solid Waste Administration	32,757	33,930	35,145	36,403	37,707	39,057	40,456	41,905	43,405	44,959	46,569
Postage Expense	DPW - Solid Waste Administration	1,000	1,036	1,073	1,111	1,151	1,192	1,235	1,279	1,325	1,373	1,422
Wireless Telephone Expense	DPW - Solid Waste Administration	95,949	99,385	102,944	106,630	110,448	114,403	118,500	122,743	127,138	131,691	136,407
Printing & Binding	DPW - Solid Waste Administration	30,000	31,074	32,187	33,340	34,533	35,770	37,051	38,378	39,752	41,175	42,650
Business Travel / Per Diem	DPW - Solid Waste Administration	62,964	65,219	67,554	69,973	72,479	75,074	77,762	80,547	83,431	86,419	89,513
Training Travel / Per Diem	DPW - Solid Waste Administration	7,480	7,748	8,025	8,313	8,610	8,919	9,238	9,569	9,911	10,266	10,634
Memberships	DPW - Solid Waste Administration	4,714	4,883	5,058	5,239	5,426	5,621	5,822	6,030	6,246	6,470	6,702
Training / Registration	DPW - Solid Waste Administration	20,000	20,716	21,458	22,226	23,022	23,847	24,701	25,585	26,501	27,450	28,433
Supplies, Consumable	DPW - Solid Waste Administration	119,996	124,293	128,744	133,354	138,129	143,075	148,199	153,505	159,002	164,696	170,593
Util, Natural Gas	DPW - Solid Waste Administration	42,605	44,131	45,711	47,348	49,043	50,799	52,618	54,503	56,454	58,476	60,570
Util, Electricity	DPW - Solid Waste Administration	11,363	11,770	12,191	12,628	13,080	13,548	14,034	14,536	15,057	15,596	16,154
Catering	DPW - Solid Waste Administration	37,292	38,627	40,011	41,443	42,927	44,464	46,057	47,706	49,414	51,184	53,016
Computers (\$0-999)	DPW - Solid Waste Administration	25,000	25,895	26,822	27,783	28,778	29,808	30,876	31,981	33,127	34,313	35,541
Uniforms	DPW - Solid Waste Administration	20,000	20,716	21,458	22,226	23,022	23,847	24,701	25,585	26,501	27,450	28,433
Supplies, Non-Consumable-Small Parts	DPW - Solid Waste Administration	11,484	11,895	12,321	12,762	13,219	13,693	14,183	14,691	15,217	15,762	16,326
Supplies, Tools	DPW - Solid Waste Administration	7,500	7,769	8,047	8,335	8,633	8,942	9,263	9,594	9,938	10,294	10,662
Motor Equip, Pm/Repairs	DPW - Solid Waste Administration	437,523	453,190	469,418	486,227	503,639	521,673	540,354	559,703	579,745	600,505	622,008
Training Travel / Per Diem	DPW - Customer Service	5,000	5,179	5,364	5,557	5,756	5,962	6,175	6,396	6,625	6,863	7,108
Consulting / Professional Services	DPW - Solid Waste Collection - Curbside	6,996	7,247	7,506	7,775	8,053	8,342	8,640	8,950	9,270	9,602	9,946
Repair & Maintenance-Building	DPW - Solid Waste Collection - Curbside	150,000	155,371	160,935	166,698	172,667	178,850	185,254	191,888	198,759	205,877	213,249
Business Travel / Per Diem	DPW - Solid Waste Collection - Curbside	996	1,032	1,069	1,107	1,147	1,188	1,230	1,274	1,320	1,367	1,416
Training Travel / Per Diem	DPW - Solid Waste Collection - Curbside	5,004	5,183	5,369	5,561	5,760	5,966	6,180	6,401	6,631	6,868	7,114
Training / Registration	DPW - Solid Waste Collection - Curbside	3,000	3,107	3,219	3,334	3,453	3,577	3,705	3,838	3,975	4,118	4,265
Util, Water / Sewer	DPW - Solid Waste Collection - Curbside	42,348	43,864	45,435	47,062	48,747	50,493	52,301	54,174	56,114	58,123	60,204
Util, Natural Gas	DPW - Solid Waste Collection - Curbside	97,764	101,265	104,891	108,647	112,537	116,567	120,741	125,065	129,543	134,182	138,987
Equipment (\$0-999)	DPW - Solid Waste Collection - Curbside	71,688	74,255	76,914	79,668	82,521	85,476	88,537	91,707	94,991	98,399	101,916
Motor Equip, Pm/Repairs	DPW - Solid Waste Collection - Curbside	4,299,996	4,453,973	4,613,463	4,778,665	4,949,782	5,127,027	5,310,619	5,500,785	5,697,760	5,901,789	6,113,124
Util, Electricity	DPW - Solid Collection - Backyard	13,752	14,244	14,755	15,283	15,830	16,397	16,984	17,592	18,222	18,875	19,551
Uniforms	DPW - Solid Collection - Backyard	6,732	6,973	7,223	7,481	7,749	8,027	8,314	8,612	8,920	9,240	9,571
Util, Electricity	DPW - Solid Collection - Multi-Family	16,296	16,880	17,484	18,110	18,759	19,430	20,126	20,847	21,593	22,366	23,167
Uniforms	DPW - Solid Collection - Multi-Family	7,212	7,470	7,738	8,015	8,302	8,599	8,926	9,226	9,556	9,899	10,253
Supplies, Tools	DPW - Solid Collection - Multi-Family	540	559	579	600	622	644	667	691	716	741	768
Motor Equip, Fuel	DPW - Solid Collection - Multi-Family	32,004	33,150	34,337	35,567	36,840	38,159	39,526	40,941	42,407	43,926	45,499
Motor Equip, Pm/Repairs	DPW - Solid Collection - Multi-Family	136,658	141,552	146,620	151,871	157,309	162,942	168,777	174,820	181,080	187,565	194,281
Motor Equip, Fuel	DPW - Bulk Rubbish Collections	33,020	34,202	35,427	36,696	38,010	39,371	40,781	42,241	43,754	45,320	46,943
Motor Equip, Pm/Repairs	DPW - Bulk Rubbish Collections	291,142	301,568	312,367	323,552	335,138	347,139	359,659	372,445	385,782	399,596	413,905
Salaries, Regular	DPW - Yard Trimming Collections	2,423,688	2,510,477	2,600,374	2,693,489	2,789,939	2,889,843	2,993,324	3,100,511	3,211,536	3,326,537	3,445,656
Business Travel / Per Diem	DPW - Yard Trimming Collections	12	13	13	13	14	14	15	15	16	16	17
Training Travel / Per Diem	DPW - Yard Trimming Collections	2,028	2,101	2,176	2,254	2,334	2,418	2,505	2,594	2,687	2,783	2,883
Training / Registration	DPW - Yard Trimming Collections	756	783	811	840	870	901	934	967	1,002	1,038	1,075
Util, Electricity	DPW - Yard Trimming Collections	12,696	13,151	13,622	14,109	14,615	15,138	15,680	16,241	16,823	17,425	18,049
Consulting / Professional Services	DPW - Yard Trimming Processing	1,783,000	1,846,847	1,912,980	1,981,481	2,052,435	2,125,930	2,202,056	2,280,909	2,362,585	2,447,186	2,534,816
Motor Equip, Fuel	DPW - Yard Trimming Processing	19,210	19,898	20,610	21,348	22,113	22,905	23,725	24,574	25,454	26,366	27,310
Motor Equip, Pm/Repairs	DPW - Yard Trimming Processing	2,580	2,672	2,768	2,867	2,970	3,076	3,186	3,300	3,419	3,541	3,668
Consulting / Professional Services	DPW - Landfill Closure & Post Closure	120	124	129	133	138	143	148	154	159	165	171
Consulting / Professional Services-Technical	DPW - Landfill Closure & Post Closure	2,392,920	2,478,607	2,567,363	2,659,297	2,754,522	2,853,158	2,955,326	3,061,152	3,170,767	3,284,308	3,401,914
Repair & Maintenance-Building	DPW - Landfill Closure & Post Closure	8,004	8,291	8,587	8,895	9,214	9,543	9,887	10,239	10,606	10,986	11,379
Training Travel / Per Diem	DPW - Landfill Closure & Post Closure	1,524	1,579	1,635	1,694	1,754	1,817	1,882	1,950	2,019	2,092	2,167
Memberships	DPW - Landfill Closure & Post Closure	500	518	536	556	576	596	618	640	663	686	711
Util, Electricity	DPW - Landfill Closure & Post Closure	58,860	60,968	63,151	65,412	67,755	70,181	72,694	75,297	77,993	80,786	83,679
Motor Equip, Fuel	DPW - Landfill Closure & Post Closure	2,574	2,666	2,762	2,861	2,963	3,069	3,179	3,293	3,411	3,533	3,659
Motor Equip, Pm/Repairs	DPW - Landfill Closure & Post Closure	31,644	32,777	33,951	35,167	36,426	37,730	39,081	40,481	41,930	43,432	44,981
Consulting / Professional Services	DPW - Disposal - Landfill	4,031,122	4,175,470	4,324,988	4,479,860	4,640,278	4,806,439	4,978,551	5,156,826	5,341,485	5,532,756	5,730,876
Repair & Maintenance-Equipment	DPW - Disposal - Landfill	44,022	44,022	45,598	47,231	48,922	50,674	52,489	54,368	56,315	58,332	60,420
Supplies, Non-Consumable	DPW - Disposal - Landfill	734,112	760,400	787,628	815,832	845,046	875,306	906,649	939,115	972,744	1,007,576	1,043,656
Motor Equip, Fuel	DPW - Disposal - Landfill	2,247	2,327	2,411	2,497	2,587	2,679	2,775	2,874	2,974	3,076	3,194
Motor Equip, Pm/Repairs	DPW - Disposal - Landfill	22,248	23,045	23,870	24,725	25,610	26,527	27,477	28,461	29,480	30,536	31,629
Consulting / Professional Services	DPW - Recycling & Collection	480,948	498,170	516,009	534,486	553,625	573,450	593,984	615,254	637,286	660,106	683,743
Consulting / Professional Services-Technical	DPW - Recycling & Collection	500,000	517,904	536,450	555,659	575,557	596,167	617,514	639,627	662,531	686,255	710,829
Motor Equip, Fuel	DPW - Recycling & Collection	8,971	9,292	9,625	9,970	10,327	10,696	11,079	11,476	11,887	12,313	12,754
Motor Equip, Pm/Repairs	DPW - Recycling & Collection	109,584	113,508	117,573	121,783	126,144	130,661	135,339	140,186	145,206	150,405	155,791
Motor Equip, Fuel	NDP - Unallocated Citywide Employee Expenses	79,790	82,647	85,607	88,672	91,847	95,136	98,543	102,072	105,727	109,513	113,434
Consulting / Professional Services	COA Customer Service	42,750	44,281	45,866	47,509	49,210	50,972	52,797	54,688	56,646	58,675	60,776
Advertise	COA Customer Service	5,000	5,179	5,364	5,557	5,756	5,962	6,175	6,396	6,625	6,863	7,108
Supplies, Non-Consumable	COA Customer Service	9,996	10,354	10,725	11,109	11,507	11,919	12,345	12,787	13,245	13,720	14,211

Schedule 5 - Cash Out

		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Consulting / Professional Services	AIM - IT Strategic Services	200,001	207,163	214,581	222,265	230,224	238,468	247,007	255,852	265,014	274,503	284,333
Consulting / Professional Services	AIM - IT Infrastructure	200,604	207,787	215,228	222,935	230,918	239,187	247,752	256,623	265,813	275,331	285,190
Consulting / Professional Services-Technical	AIM - IT Infrastructure	235,560	243,995	252,732	261,782	271,156	280,866	290,923	301,341	312,132	323,309	334,886
Consulting / Professional Services	Fund 1001	7,898,070	8,180,889	8,473,835	8,777,271	9,091,573	9,417,130	9,754,344	10,103,633	10,465,430	10,840,183	11,228,355
Consulting / Professional Services-Technical	Fund 1001	4,500	4,661	4,828	5,001	5,180	5,365	5,558	5,757	5,963	6,176	6,397
Repair & Maintenance-Building	Fund 1001	50,000	51,790	53,645	55,566	57,556	59,617	61,751	63,963	66,253	68,626	71,083
Operating Lease/Rental-Equipment	Fund 1001	10,000	10,358	10,729	11,113	11,511	11,923	12,350	12,793	13,251	13,725	14,217
Postage Expense	Fund 1001	5,000	5,179	5,364	5,557	5,756	5,962	6,175	6,396	6,625	6,863	7,108
Wireless Telephone Expense	Fund 1001	16,704	17,302	17,922	18,563	19,228	19,917	20,630	21,369	22,134	22,926	23,747
Printing & Binding	Fund 1001	5,004	5,183	5,369	5,561	5,760	5,966	6,180	6,401	6,631	6,868	7,114
Business Travel / Per Diem	Fund 1001	996	1,032	1,069	1,107	1,147	1,188	1,230	1,274	1,320	1,367	1,416
Training Travel / Per Diem	Fund 1001	9,996	10,354	10,725	11,109	11,507	11,919	12,345	12,787	13,245	13,720	14,211
Memberships	Fund 1001	1,500	1,554	1,609	1,667	1,727	1,788	1,853	1,919	1,988	2,059	2,132
Training / Registration	Fund 1001	15,420	15,972	16,544	17,137	17,750	18,386	19,044	19,726	20,432	21,164	21,922
Supplies, Consumable	Fund 1001	107,100	110,935	114,908	119,022	123,284	127,699	132,272	137,008	141,914	146,996	152,260
Supplies, Non-Consumable	Fund 1001	3,108	3,219	3,335	3,454	3,578	3,706	3,838	3,976	4,118	4,266	4,419
Supplies, Consumable-Trackable	Fund 1001	29,172	30,217	31,299	32,419	33,580	34,783	36,028	37,318	38,655	40,039	41,473
Util, Natural Gas	Fund 1001	4,802	4,974	5,152	5,337	5,528	5,726	5,931	6,143	6,363	6,591	6,827
Catering	Fund 1001	1,800	1,864	1,931	2,000	2,072	2,146	2,223	2,303	2,385	2,471	2,559
Equipment (\$0-999)	Fund 1001	43,032	44,573	46,169	47,822	49,535	51,308	53,146	55,049	57,020	59,062	61,177
Computers (\$1,000-4,999)	Fund 1001	10,000	10,358	10,729	11,113	11,511	11,923	12,350	12,793	13,251	13,725	14,217
Uniforms	Fund 1001	167,000	172,980	179,174	185,590	192,236	199,120	206,250	213,635	221,285	229,209	237,417
Supplies, Non-Consumable-Small Parts	Fund 1001	132,504	137,249	142,163	147,254	152,527	157,989	163,646	169,506	175,576	181,863	188,375
Motor Equip, Fuel	Fund 1001	406,597	421,157	436,238	451,859	468,039	484,799	502,159	520,141	538,766	558,059	578,042
Motor Equip, Pm/Repairs	Fund 1001	804,281	833,081	862,913	893,812	925,819	958,971	993,310	1,028,879	1,065,722	1,103,884	1,143,413
Subtotal Fixed Operations & Maintenance Execution		\$ 32,810,008	33,984,889	35,201,840	36,462,369	37,768,035	39,120,456	40,521,305	41,972,316	43,475,286	45,032,076	46,644,611
Fixed Operations & Maintenance Execution Execution		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total Fixed Operations & Maintenance Execution		\$ 32,810,008	33,984,889	35,201,840	36,462,369	37,768,035	39,120,456	40,521,305	41,972,316	43,475,286	45,032,076	46,644,611
Capital Outlay Execution												
Equipment (\$5,000+)	Fund 1001	\$ 184,512	191,066	197,852	204,879	212,156	219,692	227,495	235,575	243,943	252,607	261,579
Vehicles (\$5,000+)	Fund 1001	256,983	266,111	275,563	285,350	295,485	305,981	316,849	328,103	339,756	351,824	364,320
Computers (\$5,000+)	Fund 1001	5,000	5,178	5,361	5,552	5,749	5,953	6,165	6,384	6,610	6,845	7,088
Vehicle Replacement Plan - Cash Funded	0	784,675	423,816	269,719	155,223	38,317	554,241	123,472	638,263	224,707	327,785	242,826
Subtotal Capital Outlay Execution		\$ 1,231,170	886,170	748,495	651,005	551,708	1,085,867	673,980	1,208,325	815,017	939,061	875,814
Capital Outlay Execution Execution		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total Capital Outlay Execution		\$ 1,231,170	886,170	748,495	651,005	551,708	1,085,867	673,980	1,208,325	815,017	939,061	875,814
Debt Service												
Short-Term Debt												
Existing Short-Term Debt Service		\$ 4,183,027	1,725,380	1,725,380	1,725,380	1,725,380	1,725,380	-	-	-	-	-
New Short-Term Debt Service		1,097,531	1,722,701	2,079,332	3,610,703	4,604,415	6,286,946	7,522,270	8,100,546	9,552,473	8,854,541	9,295,140
Total Debt Service		\$ 5,280,558	3,448,081	3,804,712	5,336,082	6,329,794	8,012,326	7,522,270	8,100,546	9,552,473	8,854,541	9,295,140
Transfers Out												
Oper Transf Out To 3503	DPW - Commissioner of Public Works	\$ 287,352	296,143	305,202	314,539	324,161	334,078	344,298	354,831	365,686	376,873	388,403
Payments To Other Gov'Ts	DPW - Public Works Administration	237	244	252	259	267	276	284	293	302	311	320
Payments To Other Gov'Ts	DPW - Safety & Risk Management	293	302	311	321	331	341	351	362	373	384	396
Payments To Other Gov'Ts	DPW - Solid Waste Collection - Curbside	2,034	2,096	2,160	2,226	2,295	2,365	2,437	2,512	2,588	2,668	2,749
Payments To Other Gov'Ts	DPW - Bulk Rubbish Collections	2,906	2,995	3,087	3,181	3,278	3,379	3,482	3,588	3,698	3,811	3,928
Payments To Other Gov'Ts	DPW - Recycling & Collection	11,624	11,980	12,346	12,724	13,113	13,514	13,928	14,354	14,793	15,245	15,712
Payments To Other Gov'Ts		5,000	5,153	5,311	5,473	5,640	5,813	5,991	6,174	6,363	6,558	6,758
Total Transfers Out		\$ 5,457,925	5,624,894	5,796,971	5,974,313	6,157,079	6,345,437	6,539,557	6,739,616	6,945,795	7,158,281	7,377,267
Cash Funded Capital												
Cash Funded Capital		\$ 5,865,462	3,484,237	3,541,973	2,472,833	2,557,066	2,728,165	2,821,095	5,121,514	5,295,970	5,476,369	5,662,912
Total Cash Funded Capital		\$ 5,865,462	3,484,237	3,541,973	2,472,833	2,557,066	2,728,165	2,821,095	5,121,514	5,295,970	5,476,369	5,662,912
Total Cash Out		\$ 82,680,498	80,443,675	83,119,405	85,962,923	89,502,756	94,536,893	96,462,240	102,700,596	106,852,990	109,475,968	113,156,731

Schedule 6 - Pro Forma

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Rate Adjustment	0.00%	3.50%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Solid Waste											
Solid Waste Rate Revenue	\$ 53,244,155	53,244,155	55,723,878	57,554,374	59,464,894	61,505,366	63,551,041	65,687,273	67,902,143	70,196,855	72,558,056
Revenue from Growth	-	595,341	701,979	744,542	834,484	799,577	848,246	883,456	918,303	938,494	975,508
Revenue Before Rate Increase	\$ 53,244,155	53,839,496	56,425,857	58,298,916	60,299,378	62,304,942	64,399,287	66,570,729	68,820,446	71,135,349	73,533,564
Rate Increase	0.00%	3.50%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Revenue from Rate Increase	\$ -	1,884,382	1,128,517	1,165,978	1,205,988	1,246,099	1,287,986	1,331,415	1,376,409	1,422,707	1,470,671
Total Solid Waste Collection Rate Revenue	\$ 53,244,155	55,723,878	57,554,374	59,464,894	61,505,366	63,551,041	65,687,273	67,902,143	70,196,855	72,558,056	75,004,235
General Fund											
General Fund Rate Revenue	\$ 26,688,659	26,688,659	27,622,762	28,175,218	28,738,722	29,313,496	29,899,766	30,497,762	31,107,717	31,729,871	32,364,469
Revenue Before Rate Increase	\$ 26,688,659	26,688,659	27,622,762	28,175,218	28,738,722	29,313,496	29,899,766	30,497,762	31,107,717	31,729,871	32,364,469
Rate Increase	0.00%	3.50%	2.00%	2.00%	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Revenue from Rate Increase	\$ -	934,103	552,455	563,504	574,774	586,270	597,995	609,955	622,154	634,597	647,289
Total General Fund Rate Revenue	\$ 26,688,659	27,622,762	28,175,218	28,738,722	29,313,496	29,899,766	30,497,762	31,107,717	31,729,871	32,364,469	33,011,758
Total Rate Revenues	\$ 79,932,814	83,346,641	85,729,591	88,203,616	90,818,862	93,450,808	96,185,035	99,009,860	101,926,726	104,922,524	108,015,993
Plus: Other Operating Revenues	\$ 1,075,599	1,124,126	1,124,126	1,124,126	1,124,126	1,124,126	1,124,126	1,124,126	1,124,126	1,124,126	1,124,126
Operating Income	\$ 81,008,413	84,470,767	86,853,718	89,327,743	91,942,988	94,574,934	97,309,161	100,133,987	103,050,852	106,046,651	109,140,119
Less: Operating Expenses											
Personal Services	\$ (32,035,376)	(33,015,404)	(34,025,414)	(35,066,321)	(36,139,073)	(37,244,642)	(38,384,032)	(39,558,279)	(40,768,449)	(42,015,640)	(43,300,986)
Fixed Operations & Maintenance	(32,810,008)	(33,984,889)	(35,201,840)	(36,462,369)	(37,768,035)	(39,120,456)	(40,521,305)	(41,972,316)	(43,475,286)	(45,032,076)	(46,644,611)
Total Operating Expenses	\$ (64,845,384)	(67,000,293)	(69,227,254)	(71,528,690)	(73,907,108)	(76,365,098)	(78,905,337)	(81,530,596)	(84,243,735)	(87,047,716)	(89,945,597)
Net Operating Income	\$ 16,163,029	17,470,474	17,626,464	17,799,053	18,035,880	18,209,836	18,403,824	18,603,391	18,807,117	18,998,935	19,194,522
Plus (Less): Non-Operating Income in Debt Service Coverage Test											
Interest Earnings	\$ 56,887	59,976	69,885	79,082	86,778	90,431	92,200	90,821	83,730	75,656	67,411
Capital Outlay	(1,231,170)	(886,170)	(748,495)	(651,005)	(551,708)	(1,085,867)	(673,980)	(1,208,325)	(815,017)	(939,061)	(875,814)
Transfers Out	(5,457,925)	(5,624,894)	(5,796,971)	(5,974,313)	(6,157,079)	(6,345,437)	(6,539,557)	(6,739,616)	(6,945,795)	(7,158,281)	(7,377,267)
Total Non-Operating	\$ (6,632,208)	(6,451,088)	(6,475,582)	(6,546,236)	(6,622,009)	(7,340,874)	(7,121,337)	(7,857,119)	(7,677,081)	(8,021,686)	(8,185,670)
Net Income Before Debt Service	\$ 9,530,821	11,019,387	11,150,883	11,252,817	11,413,871	10,868,963	11,282,487	10,746,272	11,130,036	10,977,249	11,008,852
Debt Service & Coverage											
Existing Short-Term Debt Service	\$ 4,183,027	1,725,380	1,725,380	1,725,380	1,725,380	1,725,380	-	-	-	-	-
New Short-Term Debt Service	1,097,531	1,722,701	2,079,332	3,610,703	4,604,415	6,286,946	7,522,270	8,100,546	9,552,473	8,854,541	9,295,140
Total Short-Term Debt Service	\$ 5,280,558	3,448,081	3,804,712	5,336,082	6,329,794	8,012,326	7,522,270	8,100,546	9,552,473	8,854,541	9,295,140
Short-Term Debt Service Coverage	1.80	3.20	2.94	2.12	1.82	1.38	1.53	1.36	1.19	1.28	1.22
Total Debt Service	\$ 5,280,558	3,448,081	3,804,712	5,336,082	6,329,794	8,012,326	7,522,270	8,100,546	9,552,473	8,854,541	9,295,140
Net Cash Flow	\$ 14,811,379	14,467,468	14,955,595	16,588,899	17,743,666	18,881,289	18,804,756	18,846,818	20,682,509	19,831,790	20,303,992
Fund Balance											
Balance at Beginning of Fiscal Year	\$ 23,562,236	21,947,038	26,034,106	29,874,127	33,391,240	36,031,393	36,313,042	37,447,146	35,209,685	31,774,513	28,750,295
Net Cash Flow	4,250,263	7,571,306	7,381,993	5,989,945	5,197,220	3,009,813	3,955,199	2,884,053	1,860,797	2,452,151	2,091,026

Schedule 6 - Pro Forma

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Total Funds Available	\$ 27,812,499	29,518,343	33,416,100	35,864,072	38,588,459	39,041,207	40,268,242	40,331,199	37,070,483	34,226,664	30,841,321
Less: Planned Cash Funded Capital	\$ (5,865,462)	(3,484,237)	(3,541,973)	(2,472,833)	(2,557,066)	(2,728,165)	(2,821,095)	(5,121,514)	(5,295,970)	(5,476,369)	(5,662,912)
Balance of Working Capital	\$ 21,947,038	26,034,106	29,874,127	33,391,240	36,031,393	36,313,042	37,447,146	35,209,685	31,774,513	28,750,295	25,178,409
Less: Working Capital Reserve Target	\$ (16,211,346)	(16,750,073)	(17,306,813)	(17,882,173)	(18,476,777)	(19,091,274)	(19,726,334)	(20,382,649)	(21,060,934)	(21,761,929)	(22,486,399)
Surplus/Deficit of Working Capital	\$ 5,735,692	9,284,033	12,567,314	15,509,067	17,554,616	17,221,768	17,720,812	14,827,036	10,713,579	6,988,366	2,692,009
Add Back: Working Capital Reserve	\$ 16,211,346	16,750,073	17,306,813	17,882,173	18,476,777	19,091,274	19,726,334	20,382,649	21,060,934	21,761,929	22,486,399
Balance at End of Fiscal Year	\$ 21,947,038	26,034,106	29,874,127	33,391,240	36,031,393	36,313,042	37,447,146	35,209,685	31,774,513	28,750,295	25,178,409

Schedule 7 - Capital Improvement Plan

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Annual Site Landfill/Gas System Evaluation and Periodic Aerial Mapping Updates	\$ 10,000	10,000	50,000	23,333	23,333	23,333	23,333	23,333	23,333	23,333	23,333
Project Management, Scheduling, Record Keeping, and Reporting, etc. and Monthly Meetings	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Permitting (Minor Modifications)	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Groundwater and Surface Water Monitoring & Reporting (Semi-annual), including MNA Monitoring Preventive Maintenance	552,000	552,000	552,000	552,000	552,000	552,000	552,000	552,000	552,000	552,000	552,000
Supplemental Monitoring/Tuning of GCCSs (As Needed)	48,000	48,000	48,000	48,000	48,000	48,000	48,000	48,000	48,000	48,000	48,000
Flare Repairs and Maintenance (Gun Club Replacement FY23)	42,000	36,000	30,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000
Unscheduled Maintenance and Emergencies	48,000	48,000	48,000	48,000	48,000	48,000	48,000	48,000	48,000	48,000	48,000
Leachate Discharge Permit Compliance (Cascade)	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Repair/Replace Damaged Fencing to Maintain Site Security	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
Fill Areas of Cap Settlement and Revegetate, incl. Gas System Adjustments (Cascade FY23, Key Rd FY24)	75,000	75,000	-	-	-	-	-	-	-	-	-
GCCS Upgrades (Incl. Condensate)	2,444,000	-	-	-	-	-	-	-	-	-	-
Gun Club Property Acquisition for Monitoring Wells and Access Control	42,000	36,000	30,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000
Phase 5 GCCS Upgrades (Supplemental Nat Gas Feed to Flare) (Gun Club, Key Rd, Cascade)	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
NPDES Requirements - Crushed Asphalt Stockpile Removal and Access Road Maintenance	180,000	140,000	130,000	-	-	-	-	-	-	-	-
Facility Upgrades	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Inventory - Debt Funded	1,964,462	1,964,462	1,964,462	1,033,086	1,033,086	1,104,130	1,104,130	2,847,722	2,847,722	2,847,722	2,847,722
	5,934,354	3,268,943	1,803,353	7,488,507	4,699,247	7,694,561	10,317,184	5,146,987	7,480,170	3,333,538	5,547,894
Total Projects	\$ 11,799,815	6,638,405	5,115,815	9,724,926	6,935,667	10,002,023	12,624,647	9,198,042	11,531,225	7,384,593	9,598,949
Execution %	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Escalation %	100.0%	103.4%	106.9%	110.6%	114.3%	118.2%	122.3%	126.4%	130.7%	135.2%	139.8%
Total Executed Projects	\$ 11,799,815	6,864,531	5,470,275	10,752,955	7,930,067	11,825,614	15,434,844	11,628,550	15,074,843	9,982,771	13,418,234

Schedule 8 - Borrowing

Short-Term Borrowing

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Required Proceeds	\$ 5,934,354	3,380,295	1,928,303	8,280,122	5,373,001	9,097,450	12,613,749	6,507,037	9,778,873	4,506,403	7,755,322
Sources of Funds											
Par Amount	\$ 6,055,463	3,449,280	1,967,656	8,449,104	5,482,655	9,283,112	12,871,173	6,639,833	9,978,442	4,598,370	7,913,594
Total Sources of Funds	\$ 6,055,463	3,449,280	1,967,656	8,449,104	5,482,655	9,283,112	12,871,173	6,639,833	9,978,442	4,598,370	7,913,594
Uses of Funds											
Proceeds	\$ 5,934,354	3,380,295	1,928,303	8,280,122	5,373,001	9,097,450	12,613,749	6,507,037	9,778,873	4,506,403	7,755,322
Cost of Issuance	121,109	68,986	39,353	168,982	109,653	185,662	257,423	132,797	199,569	91,967	158,272
Total Uses of Funds	\$ 6,055,463	3,449,280	1,967,656	8,449,104	5,482,655	9,283,112	12,871,173	6,639,833	9,978,442	4,598,370	7,913,594
Debt Bundling											
Fiscal Years for Issuance	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Bundled Bond Proceeds	\$ 5,934,354	3,380,295	1,928,303	8,280,122	5,373,001	9,097,450	12,613,749	6,507,037	9,778,873	4,506,403	7,755,322
First Year Interest Payment	\$37,090	\$21,127	\$12,052	\$51,751	\$33,581	\$56,859	\$78,836	\$40,669	\$61,118	\$28,165	\$48,471
Annual Payment	1,097,531	625,170	356,631	1,531,371	993,712	1,682,532	2,332,855	1,203,447	1,808,558	833,438	1,434,311
Cumulative Annual Payment	\$ 1,097,531	1,722,701	2,079,332	3,610,703	4,604,415	6,286,946	7,522,270	8,100,546	9,552,473	8,854,541	9,295,140

Schedule 9 - Summary of Funds

Solid Waste Services Fund	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Balance at Start of FY	\$ 23,562,236	21,947,038	26,034,106	29,874,127	33,391,240	36,031,393	36,313,042	37,447,146	35,209,685	31,774,513	28,750,295
Cash In	81,008,413	84,470,767	86,889,541	89,400,954	92,056,132	94,728,111	97,504,144	100,372,314	103,334,087	106,376,094	109,517,434
Interest	56,887	59,976	69,885	79,082	86,778	90,431	92,200	90,821	83,730	75,656	67,411
Cash Out	(76,815,037)	(76,959,438)	(79,577,432)	(83,490,090)	(86,945,690)	(91,808,728)	(93,641,145)	(97,579,082)	(101,557,020)	(103,999,599)	(107,493,819)
Planned Cash Funded CIP	(5,865,462)	(3,484,237)	(3,541,973)	(2,472,833)	(2,557,066)	(2,728,165)	(2,821,095)	(5,121,514)	(5,295,970)	(5,476,369)	(5,662,912)
Subtotal	\$ 21,947,038	26,034,106	29,874,127	33,391,240	36,031,393	36,313,042	37,447,146	35,209,685	31,774,513	28,750,295	25,178,409
Less: Restricted Funds	\$ (16,211,346)	(16,750,073)	(17,306,813)	(17,882,173)	(18,476,777)	(19,091,274)	(19,726,334)	(20,382,649)	(21,060,934)	(21,761,929)	(22,486,399)
Amount Available for Projects	\$ 5,735,692	9,284,033	12,567,314	15,509,067	17,554,616	17,221,768	17,720,812	14,827,036	10,713,579	6,988,366	2,692,009
Amount Available After Projects	\$ 5,735,692	9,284,033	12,567,314	15,509,067	17,554,616	17,221,768	17,720,812	14,827,036	10,713,579	6,988,366	2,692,009
Plus: Restricted Funds	\$ 16,211,346	16,750,073	17,306,813	17,882,173	18,476,777	19,091,274	19,726,334	20,382,649	21,060,934	21,761,929	22,486,399
Available at End of FY	\$ 21,947,038	26,034,106	29,874,127	33,391,240	36,031,393	36,313,042	37,447,146	35,209,685	31,774,513	28,750,295	25,178,409
Solid Waste R&E Fund	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Balance at Start of FY	\$ (1,010,345)	(1,010,345)	(1,010,345)	(1,010,345)	(1,010,345)	(1,010,345)	(1,010,345)	(1,010,345)	(1,010,345)	(1,010,345)	(1,010,345)
Available at End of FY	\$ (1,010,345)	(1,010,345)	(1,010,345)	(1,010,345)	(1,010,345)	(1,010,345)	(1,010,345)	(1,010,345)	(1,010,345)	(1,010,345)	(1,010,345)

Schedule 10 - Vehicle Replacement Program

Vehicle	Unit	Year	Cash/Debt Funded?	Life Cycle	Replacement Cost	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Pickup - Compact	26422	2002	Cash	7	\$ 22,063	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Pickup - 1/2 Ton	26702	2003	Cash	7	32,579	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Passenger Car - Medium (C.W. 3,000 - 3,499 Lbs)	27472	2005	Cash	7	23,814	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Passenger Car - Medium (C.W. 3,000 - 3,499 Lbs)	27475	2005	Cash	7	23,814	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Passenger Car - Medium (C.W. 3,000 - 3,499 Lbs)	27477	2005	Cash	7	23,814	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Pickup - 1/2 Ton	27573	2004	Cash	7	24,211	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Pickup - 1/2 Ton	27575	2004	Cash	7	24,211	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Truck - Refrigerator	27732	2004	Cash	7	74,461	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Tandem Dump	27789	2005	Debt	10	172,380	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Tandem Dump	27790	2005	Debt	10	172,380	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Tandem Dump	27791	2005	Debt	10	172,380	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Rubbish Truck (Crew Cab)	27792	2005	Debt	8	122,688	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rubbish Truck (Crew Cab)	27795	2005	Debt	8	122,688	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Tractor Truck	27833	2005	Debt	12	175,513	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tractor Truck	27834	2005	Debt	12	175,513	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniloader	28063	2005	Cash	10	57,679	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Uniloader	28064	2005	Cash	10	57,679	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Uniloader	28065	2005	Cash	10	57,679	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Uniloader	28066	2005	Cash	10	57,679	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Rubber Tire Loader	28075	2005	Debt	7	146,478	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Pickup - Compact	28112	2005	Cash	7	20,320	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Pickup - Compact	28113	2005	Cash	7	20,320	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Van - 15 Passenger	28489	2006	Cash	7	30,627	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Van - 15 Passenger	28490	2006	Cash	7	30,627	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Pickup - 3/4 Ton	28522	2006	Cash	7	37,256	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Tandem Dump	28608	2006	Debt	10	178,370	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Tandem Dump	28609	2006	Debt	10	178,370	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Truck - Service 11 Gvw	28672	2006	Cash	8	40,372	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Rubber Tire Loader	28732	2006	Debt	7	154,672	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Van - 15 Passenger	28738	2006	Cash	7	36,726	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Tractor (85 - 90 Hp)	28775	2006	Debt	10	119,761	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Load Luggier	28866	2006	Debt	10	235,114	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Load Luggier	28868	2006	Debt	10	240,932	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubbish Truck (Crew Cab)	28876	2006	Debt	8	134,985	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rubbish Truck (Crew Cab)	28877	2006	Debt	8	134,985	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Passenger Car - Medium (C.W. 3,000 - 3,499 Lbs)	28915	2006	Cash	7	20,582	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Pickup - 1/2 Ton	28952	2006	Cash	7	22,138	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Rubber Tire Loader	29129	2005	Debt	7	171,597	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Pickup - Compact	29207	2006	Cash	7	20,823	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Pickup - Compact	29208	2006	Cash	7	20,823	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Truck Mounted Sweeper 28K	29399	2006	Debt	8	212,888	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Street Flusher	29445	2006	Debt	10	174,611	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Pickup - 1/2 Ton	29689	2007	Cash	7	23,717	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Tandem Dump	29714	2007	Debt	10	184,460	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Tandem Dump	29715	2007	Debt	10	184,460	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Tandem Dump	29798	2007	Debt	10	184,460	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Dump Truck - Stake 25 Gvw (Crew Cab)	29835	2007	Debt	8	119,722	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rubbish Truck - 12 Yard	29837	2007	Debt	8	131,693	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Passenger Car - Compact (C.W. 2,500 - 2,999 Lbs)	30141	2008	Cash	7	21,372	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Passenger Car - Compact (C.W. 2,500 - 2,999 Lbs)	30144	2008	Cash	7	21,372	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rubbish Truck (Crew Cab)	30334	2007	Debt	8	147,371	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00

Schedule 10 - Vehicle Replacement Program

Vehicle	Unit	Year	Cash/Debt Funded?	Life Cycle	Replacement Cost	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Rubbish Truck (Crew Cab)	30335	2007	Debt	8	147,371	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Pickup - 1/2 Ton	30353	2008	Cash	7	25,194	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Pickup - 1/2 Ton	30354	2008	Cash	7	25,194	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Pickup - 1/2 Ton	30360	2008	Cash	7	25,818	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Tractor (60 Hp)	30412	2008	Cash	10	33,832	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tractor (60 Hp)	30413	2008	Cash	10	33,832	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mini Rear Loader - 11 Yd	30446	2009	Debt	7	189,085	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Rubber Tire Loader	31068	2010	Debt	7	154,164	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Tandem Dump	31143	2008	Debt	10	247,127	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Tandem Dump	31144	2008	Debt	10	247,127	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Rubbish Truck (Crew Cab)	31320	2011	Debt	8	157,851	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Knuckle Boom (Trash)	31324	2011	Debt	8	213,936	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Knuckle Boom (Trash)	31325	2011	Debt	8	213,936	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Knuckle Boom (Trash)	31326	2011	Debt	8	213,936	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Knuckle Boom (Trash)	31327	2011	Debt	8	213,936	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	31330	2011	Debt	8	370,958	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	31332	2011	Debt	8	370,958	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	31333	2011	Debt	8	370,958	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	31334	2011	Debt	8	370,958	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	31336	2011	Debt	8	370,958	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	31337	2011	Debt	8	370,958	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Mini Rear Loader - 11 Yd	31341	2011	Debt	8	195,529	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Mini Rear Loader - 11 Yd	31342	2011	Debt	8	195,529	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Mini Rear Loader - 6 Yd	31343	2011	Debt	6	136,872	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Mini Rear Loader - 6 Yd	31344	2011	Debt	6	136,872	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Mini Rear Loader - 6 Yd	31345	2011	Debt	6	136,872	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
Mini Rear Loader - 6 Yd	31346	2011	Debt	6	136,872	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
Rubbish Truck (Crew Cab)	31405	2011	Debt	8	157,851	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Rubbish Truck (Crew Cab)	31406	2011	Debt	8	157,851	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Tandem Dump	31407	2011	Debt	10	228,118	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Passenger Car - Heavy (C.W. 3,500 Lbs And Over)	31803	2013	Cash	7	36,180	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Street Sweeper - 3 Wheel	31892	2012	Debt	6	240,989	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Tractor (60 Hp)	31906	2012	Cash	10	28,647	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tractor (60 Hp)	31907	2012	Cash	10	28,647	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tractor (60 Hp)	31908	2012	Cash	10	28,647	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tractor (60 Hp)	31909	2012	Cash	10	28,647	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tractor (60 Hp)	31910	2012	Cash	10	28,647	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Tractor (60 Hp)	31911	2012	Cash	10	28,647	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front Loader Refuse	31940	2012	Debt	8	330,994	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Front Loader Refuse	31941	2012	Debt	8	330,994	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Unloader	32040	2013	Cash	10	56,403	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Suv - Large (C.W. 4,751 - 5,750 Lbs)	32171	2013	Debt	10	55,732	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Pickup - 3/4 Ton	32195	2014	Cash	10	47,911	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pickup - 1/2 Ton	32196	2013	Cash	7	29,970	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Suv - Midsize (C.W. 3,751 - 4,750 Lbs)	32268	2014	Cash	7	34,097	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Pickup - 3/4 Ton	32270	2014	Cash	7	38,362	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Pickup - 3/4 Ton	32271	2014	Cash	7	38,362	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Pickup - 3/4 Ton	32272	2014	Cash	7	43,544	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Pickup - 3/4 Ton	32273	2014	Cash	7	38,362	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Pickup - 3/4 Ton	32274	2014	Cash	7	38,362	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Pickup - 3/4 Ton	32275	2014	Cash	7	38,362	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00

Schedule 10 - Vehicle Replacement Program

Vehicle	Unit	Year	Cash/Debt Funded?	Life Cycle	Replacement Cost	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Pickup - 3/4 Ton	32276	2014	Cash	7	38,362	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Pickup - 3/4 Ton	32278	2014	Cash	7	38,362	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Pickup - 3/4 Ton	32279	2014	Cash	7	43,544	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Pickup - 3/4 Ton	32280	2014	Cash	7	38,362	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Suv - Small (C.W. 3,001 - 3,750 Lbs)	32281	2014	Cash	7	32,426	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Suv - Small (C.W. 3,001 - 3,750 Lbs)	32282	2014	Cash	7	32,426	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Suv - Small (C.W. 3,001 - 3,750 Lbs)	32284	2014	Cash	7	32,426	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Rear Loader	32302	2014	Debt	8	386,071	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	32303	2014	Debt	8	386,071	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	32304	2014	Debt	8	386,071	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Rear Loader	32305	2014	Debt	8	386,071	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Rear Loader	32306	2014	Debt	8	386,071	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	32307	2014	Debt	8	386,071	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	32308	2014	Debt	8	386,071	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Rear Loader	32309	2014	Debt	8	386,071	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	32310	2014	Debt	8	386,071	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Rear Loader	32311	2014	Debt	8	386,071	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Rear Loader	32312	2014	Debt	8	386,071	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	32313	2014	Debt	8	386,071	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Rear Loader	32314	2014	Debt	8	386,071	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Rear Loader	32315	2014	Debt	8	386,071	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Rear Loader	32316	2014	Debt	8	386,071	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Rear Loader	32317	2014	Debt	8	386,071	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	32318	2014	Debt	8	386,071	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Rear Loader	32319	2014	Debt	8	386,071	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Rear Loader	32320	2014	Debt	8	386,071	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Rear Loader	32321	2014	Debt	8	386,071	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Rubber Tire Loader	32337	2014	Debt	7	152,555	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Pickup - 1/2 Ton	32339	2014	Cash	7	38,074	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Pickup - 1/2 Ton	32340	2014	Cash	7	23,476	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Pickup - 1/2 Ton	32341	2014	Cash	7	23,476	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Pickup - 1/2 Ton	32342	2014	Cash	7	23,476	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Pickup - 1/2 Ton	32343	2014	Cash	7	23,476	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Pickup - 1/2 Ton	32344	2013	Cash	7	26,625	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Mini Rear Loader - 6 Yd	32354	2014	Debt	6	128,440	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
Mini Rear Loader - 6 Yd	32356	2014	Debt	6	128,440	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
Mini Rear Loader - 6 Yd	32357	2014	Debt	6	128,440	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
Knuckle Boom (Trash)	32358	2014	Debt	8	211,465	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Knuckle Boom (Trash)	32359	2014	Debt	8	211,465	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Knuckle Boom (Trash)	32360	2014	Debt	8	211,465	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Knuckle Boom (Trash)	32361	2014	Debt	8	211,465	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Tandem Dump	32363	2015	Debt	10	186,716	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tandem Dump	32364	2015	Debt	10	186,716	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tandem Dump	32365	2015	Debt	10	186,716	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tandem Dump	32366	2015	Debt	10	186,716	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Rubbish Truck (Crew Cab)	32370	2015	Debt	8	140,312	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Rubbish Truck (Crew Cab)	32371	2015	Debt	8	140,312	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Truck Mounted Sweeper 28K	32488	2015	Debt	8	248,712	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Truck Mounted Sweeper 28K	32489	2015	Debt	8	248,712	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Truck Mounted Sweeper 28K	32490	2015	Debt	8	248,712	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Truck Mounted Sweeper 28K	32491	2015	Debt	8	248,712	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00

Schedule 10 - Vehicle Replacement Program

Vehicle	Unit	Year	Cash/Debt Funded?	Life Cycle	Replacement Cost	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Truckster - Standard	32493	2014	Cash	6	18,983	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Truckster - Standard	32494	2014	Cash	6	18,983	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Truck Mounted Sweeper 28K	32724	2015	Debt	8	248,712	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Truck Mounted Sweeper 28K	32725	2015	Debt	8	248,712	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Truck Mounted Sweeper 28K	32726	2015	Debt	8	248,712	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Truck Mounted Sweeper 28K	32727	2015	Debt	8	248,712	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Tandem Dump	32981	2015	Debt	10	186,108	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mini Rear Loader - 6 Yd	32982	2015	Debt	6	174,952	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Mini Rear Loader - 6 Yd	32983	2015	Debt	6	174,952	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Truck Mounted Sweeper 28K	33073	2015	Debt	8	248,712	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Truck Mounted Sweeper 28K	33074	2015	Debt	8	248,712	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Front Loader Refuse	33114	2015	Debt	8	404,029	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Front Loader Refuse	33115	2015	Debt	8	404,029	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Uniloaders	33117	2015	Debt	7	167,000	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Sedan - Hybrid	33312	2017	Cash	7	60,000	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Sedan - Hybrid	33313	2017	Cash	7	60,000	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Sedan - Hybrid	33314	2017	Cash	7	60,000	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Sedan - Hybrid	33316	2017	Cash	7	60,000	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Suv - Midsize (C.W. 3,751 - 4,750 Lbs)	33393	2016	Cash	7	59,319	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Suv - Midsize (C.W. 3,751 - 4,750 Lbs)	33487	2016	Cash	7	33,969	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Pickup - 3/4 Ton	33588	2017	Cash	7	38,317	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Pickup - 3/4 Ton	33589	2017	Cash	7	38,317	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Sedan - Electric	33594	2015	Debt	7	60,000	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Sedan - Electric	33595	2015	Debt	7	60,000	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Rear Loader	33615	2017	Debt	8	317,153	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Rear Loader	33616	2017	Debt	8	317,153	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Rear Loader	33617	2017	Debt	8	317,153	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Rear Loader	33618	2017	Debt	8	317,153	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Rear Loader	34050	2018	Debt	8	197,200	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34051	2018	Debt	8	197,200	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Rear Loader	34052	2018	Debt	8	197,200	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Rear Loader	34053	2018	Debt	8	194,300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Side Loader	34054	2018	Debt	8	282,330	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34057	2018	Debt	8	194,300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Rear Loader	34058	2018	Debt	8	194,300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Rear Loader	34064	2018	Debt	8	194,300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Rear Loader	34091	2018	Debt	8	194,300	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Side Loader	34158	2019	Debt	8	369,257	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34159	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Side Loader	34160	2019	Debt	8	369,257	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34161	2019	Debt	8	334,711	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34162	2019	Debt	8	334,711	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34163	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34164	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Rear Loader	34165	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34166	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34167	2019	Debt	8	334,711	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34168	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34169	2019	Debt	8	334,711	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Side Loader	34170	2019	Debt	8	369,257	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Side Loader	34171	2019	Debt	8	369,257	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00

Schedule 10 - Vehicle Replacement Program

Vehicle	Unit	Year	Cash/Debt Funded?	Life Cycle	Replacement Cost	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Side Loader	34172	2019	Debt	8	369,257	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34173	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34183	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34184	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34185	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34301	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Mini Rear Loader - 11 Yd	34317	2019	Debt	8	179,785	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Mini Rear Loader - 11 Yd	34371	2019	Debt	8	179,785	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Mini Rear Loader - 11 Yd	34372	2019	Debt	8	179,785	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Mini Rear Loader - 11 Yd	34373	2019	Debt	8	179,785	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Mini Rear Loader - 11 Yd	34374	2019	Debt	8	179,785	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34375	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34376	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34377	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34378	2019	Debt	8	334,711	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34379	2019	Debt	8	334,711	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34380	2019	Debt	8	334,711	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34381	2019	Debt	8	334,711	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34391	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34392	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34393	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34401	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34402	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34414	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34416	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	34417	2019	Debt	8	334,711	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Truck - Refrigerator	34538	2019	Debt	8	60,146	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Rubber Tire Loader W/Backhoe	34861	2015	Debt	7	301,148	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Van - Mini	32793	2015	Debt	7	47,951	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Van - Mini	35467	2021	Debt	7	70,225	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Van - 15 Passenger	28461	2006	Debt	7	30,627	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Truck - Stake 11 Gww (Crew Cab)	27839	2004	Debt	7	78,365	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Truck - Service 11 Gww (Crew Cab)	29496	2006	Debt	7	65,779	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Suv - Midsize (C.W. 3,751 - 4,750 Lbs)	35473	2022	Debt	7	52,947	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Rear Loader	35296	2022	Debt	8	328,407	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	35297	2022	Debt	8	328,407	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	35298	2022	Debt	8	328,407	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	35299	2022	Debt	8	328,407	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	35315	2022	Debt	8	328,407	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	35316	2022	Debt	8	328,407	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	35317	2022	Debt	8	328,407	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	35318	2022	Debt	8	328,407	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Rear Loader	31839	2013	Debt	7	290,533	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Rear Loader	31820	2013	Debt	7	246,088	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Rear Loader	31821	2013	Debt	7	246,088	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Rear Loader	31822	2013	Debt	7	246,088	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Rear Loader	31823	2013	Debt	7	246,088	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Rear Loader	31824	2013	Debt	7	246,088	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Rear Loader	31829	2013	Debt	7	246,088	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Rear Loader	31830	2013	Debt	7	246,088	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Rear Loader	31834	2013	Debt	7	246,088	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00

Schedule 10 - Vehicle Replacement Program

Vehicle	Unit	Year	Cash/Debt Funded?	Life Cycle	Replacement Cost	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Rear Loader	31837	2013	Debt	7	246,088	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Rear Loader	31841	2013	Debt	7	246,088	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Rear Loader	31842	2013	Debt	7	290,533	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Pickup - Compact	34692	2020	Debt	7	29,002	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Pickup - Compact	34697	2020	Debt	7	29,002	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Pickup - Compact	34698	2020	Debt	7	29,002	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Pickup - Compact	34699	2020	Debt	7	29,002	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Pickup - 1 Ton	35168	2021	Debt	7	55,631	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Pickup - 1 Ton	35169	2021	Debt	7	55,631	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Bus (30 Passenger)	28550	2005	Debt	7	95,340	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
2022 Freightliner M2-106 Sweep	35575	2023	Debt	7	273,728	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
2022 Freightliner M2-106 Sweep	35576	2023	Debt	7	273,728	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
2022 Freightliner M2-106 Sweep	35577	2023	Debt	7	273,728	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Cash Funded						\$ 784,675	423,816	269,719	155,223	38,317	554,241	123,472	638,263	224,707	327,785	242,826
Debt Funded						\$ 5,934,354	3,268,943	1,803,353	7,488,507	4,699,247	7,694,561	10,317,184	5,146,987	7,480,170	3,333,538	5,547,894
Total Cost						\$ 6,719,028	3,692,759	2,073,073	7,643,730	4,737,564	8,248,802	10,440,656	5,785,250	7,704,877	3,661,323	5,790,719

Atlanta, GA
Solid Waste Operational Analysis

Appendix B
Results as of Mar 21, 2024



Inputs & Assumptions

Scenario A - 5 Day Week to 4 Day Week

Scenario B - Rear Load to Automated Side Load

Scenario C - Weekly to Biweekly Yard Trimming Collection

Scenario D - Loose Yard Trimming Collection to Collection in Carts

Scenario E - Cart Repairs & Maintenance

Scenario F - Reduce Vehicle Maintenance Expense

SCS ENGINEERS

Management Services

Scenario A - 5 Day Week to 4 Day Week

Stops per Trip

	MSW		Yard Trimming	
	5 Day	4 Day	5 Day	4 Day
Maximum Pounds/Truck	25,000	25,000	25,000	25,000
Average Pounds/Stop	57	57	94	94
Maximum Stops/Trip (Rounded) - Weight	439	439	266	266
Average Trip Time (In Field)	3.80	4.75	3.60	4.50
Average Stops/Hour	132	132	66	66
Average Stops/Trip (Rounded)	502	627	238	297

Trips/Day

	MSW		Yard Trimming	
	5 Day	4 Day	5 Day	4 Day
Total Stops Weekly	60,000	60,000	32,500	32,500
Working Days/Week	5	4	5	4
Stops/Day	12,000	15,000	6,500	8,125
Stops/Trip to Landfill/Transfer Station	439	439	238	266
Trips Needed/Day	27	34	27	31

Trucks

	MSW		Yard Trimming	
	5 Day	4 Day	5 Day	4 Day
Regular Work Hours/Day (On Route)	6	8	6	8
% of Employees Working Overtime	15%	0%	15%	0%
Overtime Hours per Day	2	0	2	0
Time per Trip (Total Time)	4.80	5.75	4.60	5.50
Trips/Day/Truck (Rounded)	1.31	1.39	1.37	1.45
Trips Needed/Day	27	34	27	31
Trucks Needed	21	25	20	22
Annual Cost/Truck	\$47,500	\$47,500	\$47,500	\$47,500
Annual Truck Cost (Rounded)	\$1,000,000	\$1,190,000	\$950,000	\$1,045,000
Additional Annual Truck Cost (Savings)		\$190,000		\$95,000

Labor Cost Comparison

	MSW		Yard Trimming	
	5 Day	4 Day	5 Day	4 Day
Trucks Required	21	25	20	22
Drivers/Truck	1	1	1	1
Helpers/Truck	2	2	2	2
Total Staff Required	63	75	60	66
Hourly Rate - Driver	\$30.80	\$30.80	\$30.80	\$30.80
Hourly Rate - Helper	\$22.75	\$22.75	\$22.75	\$22.75
Hours/Year	2,080	2,080	2,080	2,080
Annual Regular Labor Cost (Rounded)	\$3,350,000	\$3,975,000	\$3,175,000	\$3,500,000
% of Employees Working Overtime	15%	0%	15%	0%
Overtime Hourly Rate - Driver	\$33.00	\$33.00	\$33.00	\$33.00
Overtime Hourly Rate - Helper	\$24.38	\$24.38	\$24.38	\$24.38
Annual Overtime Cost (Rounded)	\$135,000	\$0	\$130,000	\$0
Total Annual Labor Cost	\$3,485,000	\$3,975,000	\$3,305,000	\$3,500,000
Additional Annual Labor Cost (Savings)		\$490,000		\$195,000

Fuel Cost Comparison

MSW	Yard Trimming
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Scenario A - 5 Day Week to 4 Day Week

	5 Day	4 Day	5 Day	4 Day
Days/Week	5	4	5	4
Weeks/Year	52	52	52	52
Time per Trip (Total Time)	4.80	5.75	4.60	5.50
Trips	27.00	34.00	27.00	31.00
Annual Trip Hours (Rounded)	33,700	40,700	32,300	35,500
Miles per Gallon	8.00	8.00	8.00	8.00
Miles per Trip	21.40	25.64	27.40	32.76
Gallons/Trip	2.68	3.20	3.43	4.10
Time per Trip (Total Time)	4.80	5.75	4.60	5.50
Gallons/Trip Hour	0.56	0.56	0.75	0.75
Annual Fuel Consumption (Gallons)	18,816	22,650	24,085	26,464
Diesel Fuel/Gallon	\$3.14	\$3.14	\$3.14	\$3.14
Annual Fuel Cost (Rounded)	\$60,000	\$75,000	\$80,000	\$85,000
Additional Annual Fuel Cost (Savings)		\$15,000		\$5,000

Repair & Maintenance (R&M) Cost Comparison

	MSW		Yard Trimming	
	5 Day	4 Day	5 Day	4 Day
Trucks Required	21.00	25.00	20.00	22.00
Annual R&M/Truck	\$23,000	\$23,000	\$23,000	\$23,000
R&M Cost (Rounded)	\$485,000	\$575,000	\$460,000	\$510,000
Additional Annual R&M Cost (Savings)		\$90,000		\$50,000

Total Estimated Cost (Savings)

	MSW		Yard Trimming	
	5 Day	4 Day	5 Day	4 Day
Trips Needed/Day	27	34	27	31
Trucks Needed	21	25	20	22
Staff	63	75	60	66
Labor		\$490,000		\$195,000
Vehicles		\$190,000		\$95,000
Fuel		\$15,000		\$5,000
Repairs & Maintenance		\$90,000		\$50,000
Total Estimated Cost (Savings)		\$785,000		\$345,000

Scenario B - Rear Load to Automated Side Load

Labor Cost Comparison

% of Trucks Converting to ASL	75%	MSW			Yard Trimming		
		Current All RL	Proposed RL	Proposed ASL	Current All RL	Proposed RL	Proposed ASL
Tons/Truck		12.5	12.5	13.5	12.5	12.5	13.5
Total Tons (Capacity)		250	63	189	250	63	189
Trucks Required		20	5	14	20	5	14
Drivers/Truck		1	1	1	1	1	1
Helpers/Truck		2	2	1	2	2	1
Total Staff Required		60	15	28	60	15	28
Hourly Rate - Driver		\$30.80	\$30.80	\$30.80	\$30.80	\$30.80	\$30.80
Hourly Rate - Helper		\$22.75	\$22.75	\$22.75	\$22.75	\$22.75	\$22.75
Hours/Year		2,080	2,080	2,080	2,080	2,080	2,080
Annual Base Labor Cost (Rounded)		\$3,175,000	\$795,000	\$1,560,000	\$3,175,000	\$795,000	\$1,560,000
% of Employees Working Overtime		25%	25%	25%	25%	25%	25%
Daily Overtime Hours		2	2	2	2	2	2
Overtime Hourly Rate - Driver		\$33.00	\$33.00	\$33.00	\$33.00	\$33.00	\$33.00
Overtime Hourly Rate - Helper		\$24.38	\$24.38	\$24.38	\$24.38	\$24.38	\$24.38
Annual Overtime Cost (Rounded)		\$215,000	\$55,000	\$105,000	\$215,000	\$55,000	\$105,000
Total Annual Labor Cost		\$3,390,000	\$850,000	\$1,665,000	\$3,390,000	\$850,000	\$1,665,000
Additional Annual Labor Cost (Savings)				(\$875,000)			(\$875,000)

Trucks

	MSW			Yard Trimming		
	Current All RL	Proposed RL	Proposed ASL	Current All RL	Proposed RL	Proposed ASL
Trucks Required	20	5	14	20	5	14
Annual Cost/Truck	\$47,500	\$47,500	\$48,750	\$47,500	\$47,500	\$48,750
Annual Truck Cost	\$950,000	\$237,500	\$682,500	\$950,000	\$237,500	\$682,500
Additional Annual Truck Cost (Savings)			(\$30,000)			(\$30,000)

Total Estimated Cost (Savings) - First Year

	MSW		MSW	Yard Trimming		Yard Trimming
	Current All RL	Proposed RL	Proposed ASL	Current All RL	Proposed RL	Proposed ASL
Initial Cart Cost			\$4,050,000			
Labor for Cart Roll Out			\$251,250			
Labor			(\$875,000)			(\$875,000)
Vehicles			(\$30,000)			(\$30,000)
Total Estimated Cost (Savings) - First Year			\$3,396,250			(\$905,000)

Total Estimated Cost (Savings) - Future Years

	MSW		MSW	Yard Trimming		Yard Trimming
	Current All RL	Proposed RL	Proposed ASL	Current All RL	Proposed RL	Proposed ASL
Labor			(\$875,000)			(\$875,000)
Vehicles			(\$30,000)			(\$30,000)
Total Estimated Cost (Savings) - Future Years			(\$905,000)			(\$905,000)

Scenario C - Weekly to Biweekly Yard Trimming Collection

Stops per Trip

	Yard Trimming		
	Weekly	Biweekly	
Maximum Pounds/Truck	25,000	25,000	
Average Pounds/Stop	94	141	1.5 Weight multiplier for biweekly collection
Maximum Stops/Trip (Rounded)	266	177	
Average Trip Time (In Field)	3.60	3.60	
Average Homes/Hour	66	44	1.5 Time per stop multiplier for biweekly collection
Average Stops/Trip (Rounded)	238	158	

Trips/Day

	Yard Trimming	
	Weekly	Biweekly
Total Containers to Collect	32,500	16,250
Working Days/Week	5	5
Containers Collected/Day	6,500	3,250
Containers/Trip	238	158
Trips Needed/Day	27	21

Trucks

	Yard Trimming	
	Weekly	Biweekly
Regular Work Hours/Day (On Route)	6	6
% of Employees Working Overtime	15%	0%
Overtime Hours per Day	2	2
Time per Trip (Total Time)	4.60	4.60
Trips/Day/Truck	1.37	1.30
Trips Needed/Day	27	21
Trucks Needed	20	17
Annual Cost/Truck	\$47,500	\$47,500
Annual Truck Cost (Rounded)	\$950,000	\$810,000
Additional Annual Truck Cost (Savings)		(\$140,000)

Labor Cost Comparison

	Yard Trimming	
	Weekly	Biweekly
Trucks Required	20	17
Drivers/Truck	1	1
Helpers/Truck	2	2
Total Staff Required	60	51
Hourly Rate - Driver	\$30.80	\$30.80
Hourly Rate - Helper	\$22.75	\$22.75
Hours/Year	2,080	2,080
Annual Regular Labor Cost (Rounded)	\$3,175,000	\$2,700,000
% of Employees Working Overtime	15%	15%
Overtime Hourly Rate - Driver	\$33.00	\$33.00
Overtime Hourly Rate - Helper	\$24.38	\$24.38
Annual Overtime Cost (Rounded)	\$130,000	\$110,000
Total Annual Labor Cost	\$3,305,000	\$2,810,000
Additional Annual Labor Cost (Savings)		(\$495,000)

Fuel Cost Comparison

	Yard Trimming	
	Weekly	Biweekly
Days/Week	5	4
Weeks/Year	52	52
Time per Trip (Total Time)	4.60	4.60
Trips	27.00	21.00
Annual Trip Hours (Rounded)	32,300	20,100
Miles per Gallon	8.00	8.00
Miles per Trip	27.40	27.40
Gallons/Trip	3.43	3.43
Time per Trip (Total Time)	4.60	4.60
Gallons/Trip Hour	0.75	0.75
Annual Fuel Consumption (Gallons - Rounded)	24,100	15,000
Diesel Fuel/Gallon	\$3.14	\$3.14
Annual Fuel Cost (Rounded)	\$80,000	\$50,000
Additional Annual Fuel Cost (Savings)		(\$30,000)

Scenario C - Weekly to Biweekly Yard Trimming Collection

Repair & Maintenance (R&M) Cost Comparison

	Yard Trimming	
	Weekly	Biweekly
Trucks Required	20.00	17.00
Annual R&M/Truck	\$23,000	\$23,000
R&M Cost (Rounded)	\$460,000	\$395,000
Additional Annual R&M Cost (Savings)		(\$65,000)

Total Estimated Cost (Savings)

	Yard Trimming	
	Weekly	Biweekly
Trips Needed/Day	27	21
Trucks Needed	20	17
Staff	60	51
Contract Labor (Rounded)		(\$1,840,000)
Vehicles		(\$140,000)
Labor		(\$495,000)
Fuel		(\$30,000)
Repairs & Maintenance		(\$65,000)
Total Estimated Cost (Savings)		(\$2,570,000)

Scenario D - Loose Yard Trimming Collection to Collection in Carts

Stops per Trip

	Yard Trimming	
	Loose	Carts
Maximum Pounds/Truck	25,000	25,000
Average Pounds/Stop	94	94
Maximum Stops/Trip (Rounded)	266	266
Average Trip Time (In Field)	3.60	3.80
Average Stops/Hour	66	132
Average Stops/Trip (Rounded)	238	502

Trips/Day

	Yard Trimming	
	Loose	Carts
Total Containers to Collect	32,500	32,500
Working Days/Week	5	5
Containers Collected/Day	6,500	6,500
Containers/Trip	238	266
Trips Needed/Day	27	24

Cart Cost

	Yard Trimming	
	Loose	Carts
Price of Cart	\$0.00	\$54.00
Useful Life		10
Amortized Cart Cost/Year		\$5.40
Total Carts in Field		100,000
Additional Annual Cart Cost (Savings) - Rounded		\$540,000

Staff for Cart Roll Out

	Yard Trimming	
	Loose	Carts
Additional Staff Required - Drivers		3
Additional Staff Required - Helpers		3
% of Time		100%
Total Staff		6.0
Hourly Rate - Driver		\$30.80
Hourly Rate - Helper		\$22.75
Hours/Year		2,080
Additional Annual Labor Cost (Savings) - Rounded		\$335,000

Trucks

	Yard Trimming	
	Loose	Carts
Regular Work Hours/Day (On Route)	6	6
% of Employees Working Overtime	15%	0%
Overtime Hours per Day	2	2
Time per Trip (Total Time)	4.60	4.80
Trips/Day/Truck	1.37	1.25
Trips Needed/Day	27	24
Trucks Needed	20	20
Annual Cost/Truck	\$47,500	\$48,750
Annual Truck Cost	\$950,000	\$975,000
Additional Annual Truck Cost (Savings)		\$25,000

Scenario D - Loose Yard Trimming Collection to Collection in Carts

Labor Cost Comparison

	Yard Trimming	
	Loose	Carts
Trucks Required	20	20
Drivers/Truck	1	1
Helpers/Truck	2	1
Total Staff Required	60	40
Hourly Rate - Driver	\$30.80	\$30.80
Hourly Rate - Helper	\$22.75	\$22.75
Hours/Year	2,080	2,080
Annual Regular Labor Cost (Rounded)	\$3,175,000	\$2,230,000
% of Employees Working Overtime	25%	25%
Overtime Hourly Rate - Driver	\$33.00	\$33.00
Overtime Hourly Rate - Helper	\$24.38	\$24.38
Annual Overtime Cost (Rounded)	\$215,000	\$150,000
Total Annual Labor Cost	\$3,390,000	\$2,380,000
Additional Annual Labor Cost (Savings)		(\$1,010,000)

Fuel Cost Comparison

	Yard Trimming	
	Loose	Carts
Days/Week	5	5
Weeks/Year	52	52
Time per Trip (Total Time)	4.60	4.80
Trips	27.00	24.00
Annual Trip Hours (Rounded)	32,300	30,000
Miles per Gallon	8.00	8.00
Miles per Trip	27.40	28.59
Gallons/Trip	3.43	3.57
Time per Trip (Total Time)	4.60	4.80
Gallons/Trip Hour	0.75	0.74
Annual Fuel Consumption (Gallons)	24,085	22,313
Diesel Fuel/Gallon	\$3.14	\$3.14
Annual Fuel Cost (Rounded)	\$80,000	\$75,000
Additional Annual Fuel Cost (Savings)		(\$5,000)

Repair & Maintenance (R&M) Cost Comparison

	Yard Trimming	
	Loose	Carts
Trucks Required	20.00	20.00
Annual R&M/Truck	\$23,000	\$23,000
R&M Cost	\$460,000	\$460,000
Additional Annual R&M Cost (Savings)		\$0

Total Estimated Cost (Savings) - 1st Year

	Yard Trimming	
	Loose	Carts
Trips Needed/Day	27	24
Total Staff Required	60	46.0
Initial Cart Cost		\$5,400,000
Labor for Cart Roll Out		\$335,000
Labor		(\$1,010,000)
Vehicles		\$25,000
Fuel		(\$5,000)
Repairs & Maintenance		\$0
Total Estimated Cost (Savings) - 1st Year		\$4,745,000

Total Estimated Cost (Savings) - Future Years

	Yard Trimming	
	Loose	Carts
Trips Needed/Day	27	24
Total Staff Required	60	40
Carts		\$540,000
Labor		(\$1,010,000)
Vehicles		\$25,000
Fuel		(\$5,000)
Repairs & Maintenance		\$0
Total Estimated Cost (Savings) - Future Years		(\$450,000)

Scenario E - Cart Repairs & Maintenance

Cart Cost

	Current	with Cart R&M
Price of Cart	\$54.00	\$54.00
Useful Life	7	10
Amortized Cart Cost/Year	\$7.71	\$5.40
Total Carts	100,000	100,000
Annual Cost (Rounded)	\$775,000	\$540,000
Carts Repaired/Year		4,286
Cart Supply Cost/Repair		\$5.00
Annual Supply Cost (Rounded)	\$0	\$25,000
Additional Annual Cart Cost (Savings)		(\$210,000)

Trucks

	Current	w Cart Repair
Additional Trucks Required	0	2
Annual Cost/Truck	\$5,000	\$5,000
Annual Truck Cost	\$0	\$10,000
Additional Annual Truck Cost (Savings)		\$10,000

Labor Cost Comparison

	Current	w Cart Repair
Additional Staff Required	0	2
Staff Time Dedicated to Disposal - Current	0.39	0
Total Staff	0.39	2.0
Hourly Rate	\$22.75	\$22.75
Hours/Year	2,080	2,080
Total Annual Cost/Employee (Rounded)	\$50,000	\$50,000
Staff Required	0.4	2.0
Annual Labor Cost (Rounded)	\$20,000	\$100,000
Additional Annual Labor Cost (Savings)		\$80,000

Scenario E - Cart Repairs & Maintenance

Fuel Cost Comparison

	Current	w Cart Repair
Days/Week	5	5
Weeks/Year	52	52
Daily Miles Driven/Truck	0.00	30.00
Trucks	0.00	2.00
Annual Trip Miles (Rounded)	0	15,600
Miles per Gallon	25.00	25.00
Annual Fuel Consumption (Gallons)	0	624
Fuel/Gallon	\$2.75	\$2.75
Annual Fuel Cost (Rounded)	\$0	\$5,000
Additional Annual Fuel Cost (Savings)		\$5,000

Repair & Maintenance (R&M) Cost Comparison

	Current	w Cart Repair
Trucks Required	0.00	2.00
Annual R&M/Truck	\$2,500	\$2,500
R&M Cost	\$0	\$5,000
Additional Annual R&M Cost (Savings)		\$5,000

Total Estimated Cost (Savings)

	Current	w Cart Repair
Additional Staff Required	0	2
Additional Trucks Required	0	2
Carts		(\$210,000)
Labor		\$80,000
Vehicles		\$10,000
Fuel		\$5,000
Repairs & Maintenance		\$5,000
Total Estimated Cost (Savings)		(\$110,000)

Scenario F - Reduce Vehicle Maintenance Expense

Vehicle Replacement Program (VRP) Costs

	Current (Estimated)	w Adequate Vehicle Replacements
Life of Vehicle	8	7
Cash Funded VRP	\$275,000	\$300,000
Debt Funded VRP	\$4,300,000	\$4,900,000
Total VRP	\$4,575,000	\$5,200,000
Additional Annual VRP Cost (Savings)		\$625,000

Repair & Maintenance (R&M) Costs

R&M/Vehicle (Rounded)	\$23,000	\$15,000
# of Current Vehicles	268	268
Total R&M	\$6,075,000	\$4,025,000
Additional Annual Repair Cost (Savings)		(\$2,050,000)

Total Estimated Cost (Savings)

Vehicles	\$625,000
Repairs & Maintenance	(\$2,050,000)
Total Annual Cost (Savings)	(\$1,425,000)