CITY AUDITOR'S OFFICE

CITY OF ATLANTA

PERFORMANCE AUDIT:

Recycling

June 12, 2025
Project No. 24.06

www.atlaudit.org

CITY OF ATLANTA

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June 12, 2025

Honorable Mayor and Members of the City Council:

We undertook this audit to assess the effectiveness of the city's curbside recycling program in diverting waste and to identify barriers to participation. We reviewed the city's recycling tonnage data, invoice data from the city's recyclables processing vendor, and recycling education provided by the Department of Public Works. Our recommendations focus on improving the city's recycling data for invoice review and metrics tracking, establishing a waste diversion goal and improving recycling rates, assessing options for glass recycling, and enforcing the city's multifamily recycling ordinance.

The Audit Committee has reviewed this report and is releasing it in accordance with Article 2, Chapter 6 of the City Charter. We sent a draft report to management May 16, 2025, and received their response May 30, 2025. We appreciate the courtesy and cooperation of city staff throughout the audit. The team for this project was Michaela James, Arlynn Morris, and Ijegayehu Jones.

Amanda Noble
City Auditor

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Chair, Audit Committee

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Audit Objectives

The Department of Public Works collects recyclables once a week as part of its curbside collections service. In FY23, the department collected approximately 19,800 tons of recyclables from Atlanta residences, comprising about 19% of total tonnage collected. While recycling diverts waste from the landfill, the department estimates 20% is contaminated and participation varies across the city. We undertook this audit to assess the effectiveness of the city's recycling program in diverting waste and identify barriers to participation.

This report addresses the following objectives:

1. How effective are the city's measures to encourage participation in the recycling program?
2. What is the city's goal for recycling?
3. Are there barriers to participation in the city's recycling program?

Executive Summary

What We Found

The Department of Public Works provides curbside collection of garbage, recycling and yard trimmings for single-family residences and some multi-family residences. The city contracts with Pratt Industries for recyclables processing.

A targeted strategy for waste diversion could improve recycling participation. From 2017 to 2022, the city administered a recycling program with The Recycling Partnership that improved participation and decreased contamination rates. Overall, the city recycles about 23% of its garbage, but participation varies by service area. Residents of service area 5 recycle about 25% of their garbage waste, while the other service area recycling rates range from 15-21%.

The city aims to divert waste but has not defined a specific waste diversion goal, which could improve the effectiveness of the program. We found that the recycling tonnage in the department's tracking system was inaccurate, and invoices were not reconciled to tonnage records, leading to overpayments. Maintaining accurate tonnage data will facilitate goal tracking and invoice reconciliation. Public Works has not enforced the multi-family recycling ordinance requiring property owners of multi-family dwellings to provide recycling services for tenants and report recycling tonnage to the city annually. Unlike other municipalities in the metro area, the city accepts glass in its single-stream curbside recycling program. Accepting glass helps divert waste but is more expensive to process than other materials. Public Works should consider the economic feasibility of providing this service when it updates its solid waste management plan.

What We Recommended

We recommend that the city develop written policies and procedures for recording tonnage data, develop a quality control process to ensure data is accurate, and develop a reconciliation process to ensure invoices match tonnage data. Additionally, we recommend the city design a recycling educational program to target service areas with lower recycling participation rates, set a realistic waste diversion goal for curbside collection services, and develop a detailed enforcement plan for the multi-family recycling ordinance. We also recommend the city study the feasibility of offering single-stream recycling that includes glass.

Background

The Department of Public Works includes three formal offices: Solid Waste Services, Special Services, and Fleet Services. The Office of Solid Waste Services is responsible for collecting and disposing of household solid waste, including recycling. The city's Solid Waste Services Revenue Fund, supported by solid waste services fees charged to city residents, funds the city's curbside recycling program.

City Collects Curbside Recycling for Single-Family Residences

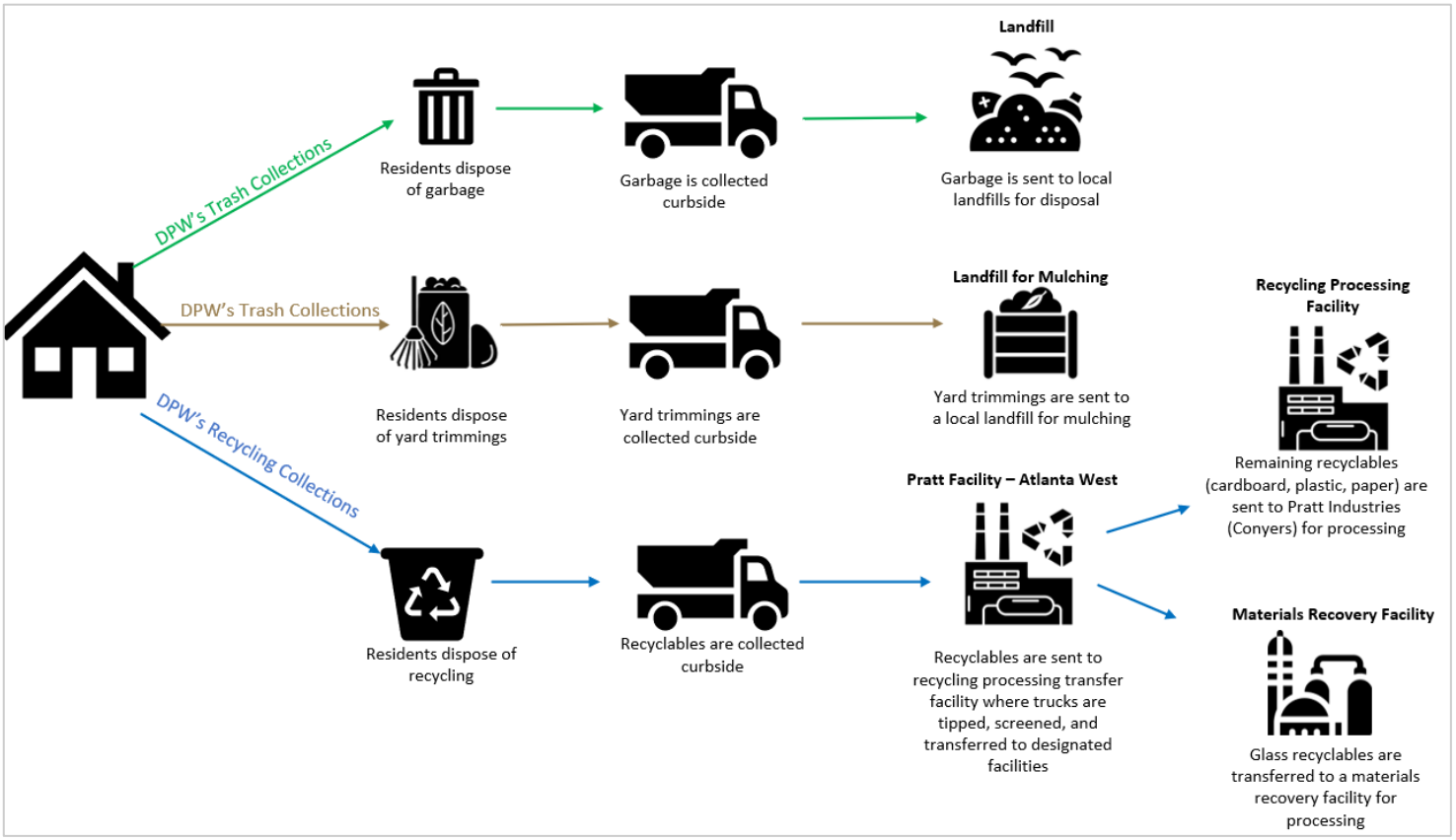
The city collects residential garbage, recycling, and yard trimmings for single-family dwellings. Public Works collects recycling once a week. The city accepts metal containers, plastic bottles and jars, glass containers, and paper (Exhibit 1). Recyclables should be empty, unbagged, and free of contamination such as garbage, plastic bags, clothing, cords, and other nonrecyclables. The city's curbside recycling program is "single-stream," which allows residents to put all recyclables into one curbside bin, rather than separating items into multiple bins by material before collection.

Exhibit 1: The City's Recycling Program Accepts Glass, Metal, Paper, and Plastic

Source: Department of Public Works' Recycling Program Website

The Office of Solid Waste Services has organized routes both by type of waste (garbage, recycling, or yard trimmings), and by service area. The department divided the city into five service areas for pickup. Solid waste services crews collect solid waste for each of the three services separately, collecting either garbage, recycling, or yard trimmings for a particular route within a service area. Residents set out solid waste to be collected by Public Works' environmental service workers on the designated service day. Collection crews then transfer each type of municipal waste to the proper landfill or transfer station, as shown in Exhibit 2. Garbage is taken to a landfill and disposed of, and yard trimmings are taken to a different landfill to be mulched. Recycling is taken to a recycling transfer station to be dumped, weighed, and sorted. The city's recyclables processing vendor sorts out the glass at the transfer station and transports it to their glass processing vendor, then transfers the rest of the recyclables to its own material recovery facility in Conyers to be further sorted and processed.

Exhibit 2: Public Works Staff Collect Garbage, Recycling, and Yard Trimmings



Source: Developed by auditors based on interviews with Public Works and Pratt Recycling staff

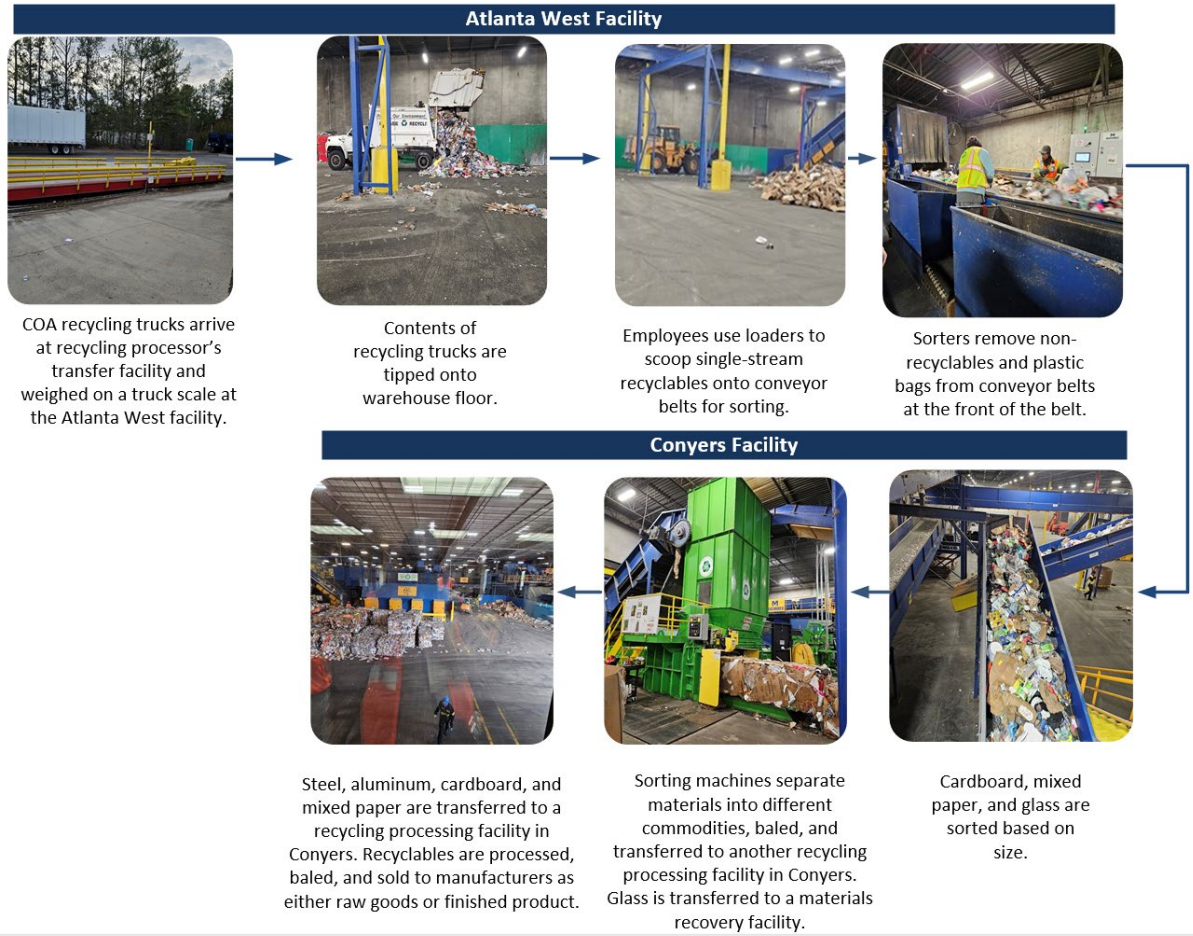
City code Section 130-38(b) states that the Department of Public Works is generally not required to collect garbage or other solid waste from multi-family

dwellings or from commercial or industrial property. Instead, city Ordinance 07-O-1335 established requirements for property owners of multi-family dwellings to provide access to recycling services for residents, include space for recycling containers in construction plans, and report recycling tonnage to the city annually.

City Contracts with a Vendor for Recyclables Processing

The city contracts with Pratt Recycling, Inc. to process the city's recyclables. Pratt is responsible for receiving, sorting, processing, storing, marketing, selling, and transporting the residential recyclable material collected by the city. Exhibit 3 illustrates how Pratt weighs, sorts, and processes recyclables once the city delivers recyclables to Pratt's Atlanta West facility.

Exhibit 3: City's Recyclables Are Processed by Pratt Recycling at Two Facilities



Source: Developed by auditors with information obtained by direct observation at Pratt recycling facilities in Atlanta West and Conyers on January 30, 2025, and interviews with Pratt and DPW employees.

Public Works crews bring the city's recycling collection to one of Pratt's transfer stations and drive the truck onto an outdoor scale to be weighed. Then they drive inside and dump the recycling onto the transfer station floor. Pratt employees then use loader vehicles to push the single-stream recyclables onto conveyor belts for sorting. Manual sorters remove non-recyclables and plastic bags to the front of the belt, and glass is sorted onto a different conveyor belt. Glass is then transferred to Strategic Materials, Pratt's subcontractor, for processing. The other recyclables continue through the sorting process, where mechanical sorters separate cardboard and mixed paper by size. A machine compresses the cardboard and mixed paper into bales. Pratt transfers the separated bales and other recyclables to its materials recovery facility.

At the materials recovery facility, recyclables undergo a more extensive manual and mechanical sorting process using sensors, infrared cameras, and artificial intelligence to sort recyclables into recyclable commodities, including aluminum, steel, and various types of plastic. Pratt operates an on-site paper mill that allows the company to convert paper and cardboard into new products that can be sold at retail, and also sells the other commodities to manufacturers to be made into new items.

The contract also requires Pratt to provide reports on the total recyclable materials received from the city, market pricing of recyclables, residual contamination, and truck tickets documenting tonnage amounts. The contract terms state that Pratt will charge $75 per ton of recyclable materials, but the city is eligible for a rebate of 50% of the market value of the recyclable tonnage if the market value of one ton is over $40. The city's recycling collections qualified for the rebate in all but five months from February 2022 to December 2024. On average, the city received a rebate of about $42,900 each month in calendar year 2024 and paid about $75,500. Pratt conducts quarterly audits of the city's recycling material stream to determine the material composition of the city's recyclables. Pratt then uses the material composition to calculate the composite market value of one ton of recyclables from the city based on the percentage of each material type found in the city's recyclables, including the percentage of contamination (non-recyclable items). While Pratt accepts glass through single-stream collection, glass does not contribute to the market value of the city's tonnage because Pratt does not directly process and sell it.

Recycling Fees Are Charged to All City Residents

The city charges annual fees to single-family residence owners within the city solid waste service area for recycling services, regardless of whether the

households participate in the city's recycling program. Single-family dwellings include any residential unit in a condominium project, duplex, triplex, townhouse, or rental apartment building that has been approved by the Public Works commissioner for separate container service, as opposed to multi-family dwellings designed for more than two residential units that do not qualify for separate solid waste collection services. Curbside collection is provided to all single-family residences in the service area and encompasses trash collection, recycling, and yard waste pickup. The fees for fiscal years 2025 through 2027 are shown in Exhibit 4. Residents aged 65 or older with an income below an established threshold in the previous year are eligible for an exemption from recycling fees. The Public Works commissioner reviews the solid waste fees annually; the current rate schedule includes 2% increases each fiscal year.

Exhibit 4: Solid Waste Services Fees Include Solid Waste Collection and Recycling

Type	Solid Waste and Recycling Fees				
	Applicable	Frequency	FY2025	FY2026	FY2027
Solid Waste Collection & Disposal	Residential	Per Year	$423.78	$432.26	$440.90
Recycling	Residential Recycling	Per Year	$124.39	$126.87	$129.41

Source: Department of Public Works' Website

Rubicon is Used to Record Recycling Tonnage

The Department of Public Works uses Rubicon, a solid waste route management system, to track curbside collection crews. The platform allows drivers to track their route progress, including completed stops and issues along the route, as well as the number of disposal trips made to landfills or transfer stations and the amount of tonnage collected after each service. When drivers complete a route or fill their truck, they take the waste to the appropriate drop-off point—either a landfill for disposal, a recycling transfer station, or a landfill for mulching yard waste. The truck is weighed at the station, and the driver receives a tonnage ticket that shows the date, truck number, and net tonnage for each load. Drivers then enter the net tons in their route in Rubicon.

Findings and Analyses

Objective 1: How effective are the city's measures to encourage participation in recycling programs?

Targeted Strategy Could Improve Recycling Participation

Since the Department of Public Works began initiatives to define and promote its recycling efforts in 2017, the city has improved participation in its recycling program and increased the amount of waste diverted from landfills. In 2017, the city developed a solid waste management plan that captured the city's waste generation across several sectors in 2016. The city's solid waste management plan shows that residential single-family dwellings and multi-family dwellings with less than six units that are serviced by the city generated 140,000 tons of solid waste in 2016. About 89% of that waste was disposed of, and about 11% was recycled.

In 2017, the city collaborated with the Recycling Partnership—an organization that works with communities and policymakers to improve recycling systems and other sustainability efforts—to administer a pilot recycling education program. The program sought to improve recycling performance across three sectors: single-family, multi-family, and higher education. The campaign started with a curbside recycling and garbage cart study conducted by a third-party vendor. Households were randomly selected for sampling, the entire contents of the sampled garbage and recycling carts were removed and taken to a central sorting location and the contents were hand-sorted, and the weight of each material type was recorded.

In 2019, the department started the full-scale program, which involved a cart-tagging campaign called Feet on the Street, in which Public Works' Solid Waste Education and Enforcement Team tagged visibly contaminated recycling carts with stickers that informed residents of proper recycling practices. Solid waste service workers would then return to check if proper recycling practices were followed.

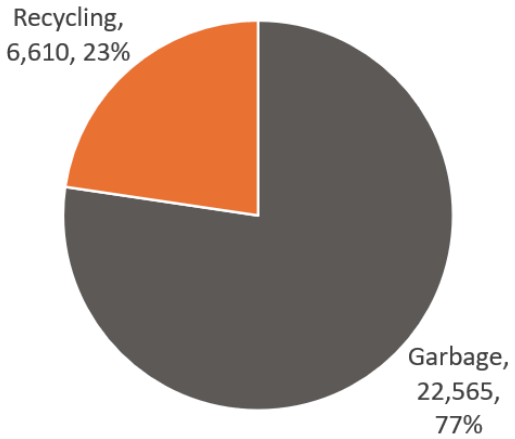
The Feet on the Street campaign increased recycling participation by 4 percentage points from 2019 to 2022; over 2,000 more households were setting out their recycling carts. By 2022, carts with bagged recyclables, which

contaminate the recycling stream, decreased by 80% since 2017. Overall, visible recycling cart contamination decreased by 30%. The top recycling material was paper.

The City Is Currently Recycling 23% of Its Waste

About two years after the completion of the Feet on the Street campaign, the city's recycling rate reached 23%, excluding composting and yard waste. We reviewed citywide recycling tonnage data collected from September 2024 to January 2025 and found that the city recorded collection of 29,175 tons of garbage and recycling across all service areas; 77% was garbage waste, and 23% was recycled, as shown in Exhibit 5.

Exhibit 5: The City Recycled 23% of Household Waste from September 2024 through January 2025



Date	Recycling Tonnage	Garbage Tonnage
September-24	1,383	4,223
October-24	1,396	4,903
November-24	1,334	4,306
December-24	1,322	4,523
January-25	1,175	4,609
Total	6,610	22,565

Note: Although our detailed analysis of Rubicon data found that for the period of December 2, 2024 through December 7, 2024, less tonnage was recorded in the Rubicon system than shown on tonnage tickets from the vendor, we determined that the data was reliable to formulate conclusion regarding overall recycling rates for this period.

Source: Developed by auditors using garbage and recycling tonnage data from the Rubicon system from September 2024, through January 2025

Rubicon Data Could Be Improved

We reviewed recycling tonnage data from September 2024 through January 2025 in the Rubicon system and identified discrepancies between the monthly tonnage on the Pratt invoices and the tonnage in Rubicon. When drivers complete a route and take the waste to the Pratt materials recovery station, the truck is weighed at the station, and the driver receives a tonnage ticket that shows the date, truck number, and net tonnage for each load. Drivers are then required to enter the net tons in their route in Rubicon.

To check the accuracy of the data in Rubicon, we selected a judgmental sample of one service week—December 2, 2024, through December 7, 2024—and reviewed tonnage tickets collected for both garbage and recycling routes. We compared the recycling processor's tonnage data to the physical tonnage tickets stored by Public Works supervisors to assess whether the data inputs from Pratt's invoices were accurate. We found that for that week, the tonnage in Rubicon's data was consistently lower than the figures on the Pratt invoices. Inaccuracies were caused by manual data entry errors and tonnage that was not entered for some routes.

Vendor Tonnage Tickets Showed 54 More Tons Than Recycling Tonnage in the City's System for One Week

During the sampled week, Pratt recorded 97 tickets with a total of about 386 tons for curbside recycling, but Rubicon only showed 332 tons for that week—about 54 tons less than was actually collected from curbside recycling customers that week. Our review identified several types of errors. Some routes were not tracked in Rubicon.

For example, although there was a physical ticket confirming one specific truck collected and dumped recycling at the transfer station, the Rubicon report does not reflect that that particular truck was used that day. There were also some instances in which the Rubicon tonnage amount was double the amount stated on the ticket and showed two disposal trips, but we only found one ticket for those particular routes. A Public Works crew supervisor said this may be caused when the driver view is not synced with the supervisor view; if a driver enters the tonnage and uploads a ticket, but the supervisor cannot see it, they may also enter the ticket and tonnage, but once Rubicon logs the tonnage, it counts the tonnage twice and lists it as two trips. A few of the discrepancies were caused

by a Public Works collections driver who consistently rounded the net tons down to the whole number when entering Rubicon, rather than including the two decimal points. This led to the tonnage for those routes being understated in Rubicon.

To ensure that Public Works can use Rubicon data to assess recycling behavior, ensure invoices are accurate and supported, and conduct a route optimization assessment for curbside collection, we recommend that the commissioner develop written policies and procedures for uploading tickets and accurately entering tonnage data into Rubicon. We also recommend that the commissioner develop a periodic quality control process to ensure Rubicon data is accurate and complete.

Participation Varies by Service Area

Using the tonnage data that we reviewed for December 2, 2024 through December 7, 2024, we assessed recycling participation rates by service area, based on the percentage of garbage compared to recycling.

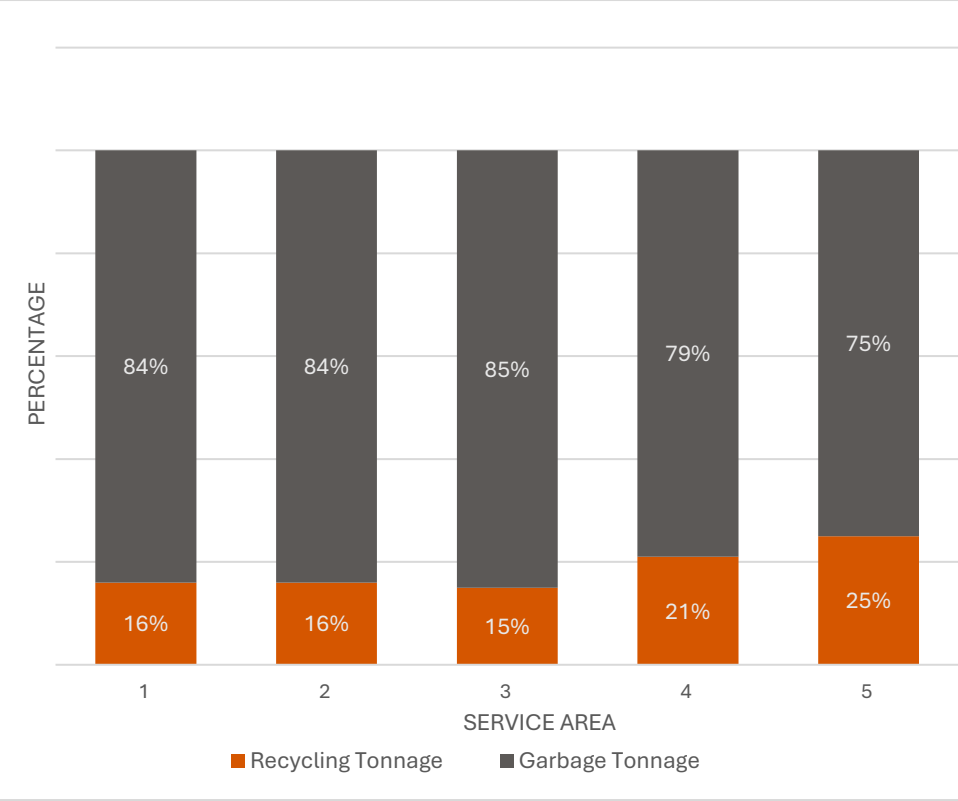
Based on the tons of recycling collected by service area, residents in Service Area 5 recycle a higher percentage of their household waste than residents in other service areas, followed closely by Service Area 4. Of the household waste generated, excluding yard waste, 25% of Service Area 5's household waste was diverted through recycling, and Service Area 4's recycling rate was 21%, while other service areas only diverted 15% to 16% of their waste, as shown in Exhibit 6.

Service Area 5 Leads in Recycling Participation

The Environmental Protection Agency's (EPA) latest National Overview, with data as of 2018, states that the United States generated over 292 million tons of municipal solid waste, and approximately 69 million tons were recycled, for a recycling rate of about 26%, excluding composting and yard waste. While the city's overall recycling rate has increased, some service areas are well below the national benchmark and may be able to improve recycling behaviors and participation. We found that the recycling rates for Service Areas 1, 2, and 3 fall significantly below both the national benchmark of 26% and the 25% achieved in Service Area 5. This highlights a clear discrepancy in recycling effectiveness that suggests further attention. Improving recycling participation in the service areas

with lower recycling rates would increase diversion and bring the city as a whole closer to or beyond the national rate.

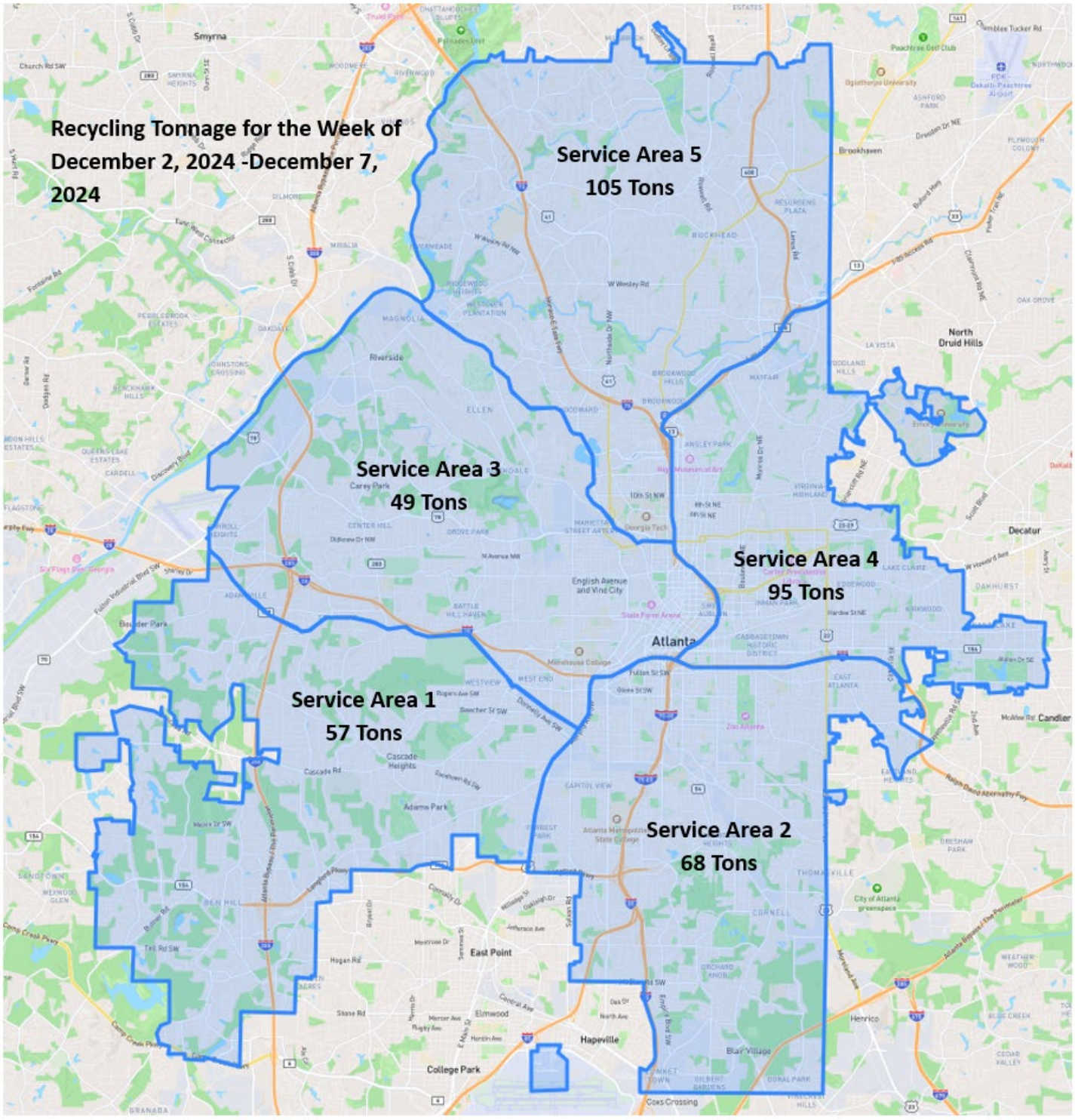
Exhibit 6: Recycling Rates Across Service Areas Ranged From 16% to 25%



Source: Compiled by auditors using tonnage tickets for the period of December 2, 2024 through December 7, 2024

Exhibit 6 shows service areas that may benefit from additional recycling education to increase participation. With increased recycling participation, service areas 1 through 3 can increase the overall recycling rate for the City of Atlanta. Exhibit 7 shows the amount of recycling tonnage for each services area, mapped by service area.

Exhibit 7: Recycling Rates Were Highest in Service Area 5 in December 2024



Source: Compiled by auditors using tonnage tickets for the week of December 2, 2024 through December 7, 2024

Public Works Should Reconcile Pratt Invoices to Ensure the City is Charged Correctly

We reviewed the recycling processors' monthly reports of the city's recycling invoices from February 2022 to December 2024, and found that the vendor overcharged the city in February, March, April, and November of 2024, for a total of $3,592 in overpayments. The city's contract with Pratt states that Pratt will charge $75 per ton of recyclable materials, but the city is eligible for a rebate of 50% of the market value of the recyclable tonnage if the market value of one ton is over $40. While the total fee and composite market value rebate were both calculated accurately for those months, the actual invoiced amount does not match the total fee minus the rebate. A representative of the vendor confirmed that these were overbillings and said the city will be credited on the next bill.

A more thorough invoice review process in which the department compares the invoiced tonnage to department records and confirms the amount charged is accurate could prevent future overpayments. **We recommend the Public Works commissioner develop a reconciliation process to ensure invoices match tonnage data and review market rates and rebate amounts before approving invoices for payment.**

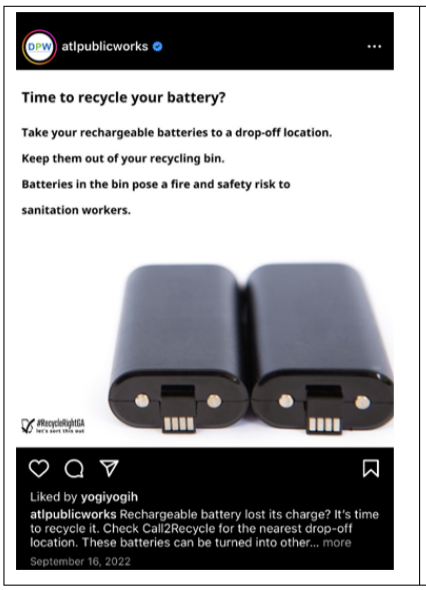
Department Provides Intermittent Recycling Education

The Recycling Partnership states that educational outreach is one of the most important strategies for increased participation. Public Works periodically sends residents educational resources through email, mail, and newsletters. The department also distributes information through its official Instagram, Twitter, and Facebook social media pages. Between 2022 and 2025, the department uploaded 13 Instagram posts and 27 Twitter posts related to recycling education. Public Works also uses the Recollect application, a platform used by Public Works to communicate weather alerts, service delays, and recycling initiatives. City residents can opt in to receive notifications from the system. As of March 2025, 16% of serviced households were receiving real-time notifications from Public Works from Recollect. The department also sent direct mailers to single-family residents during the Feet on the Street program, which ran from 2019 to 2021. Mailers provided details about the program, common recycling contaminants, and proper recycling practices. Although the department uses these methods to communicate to residents, we found that there is limited use of these tools; additional outreach could increase recycling participation.

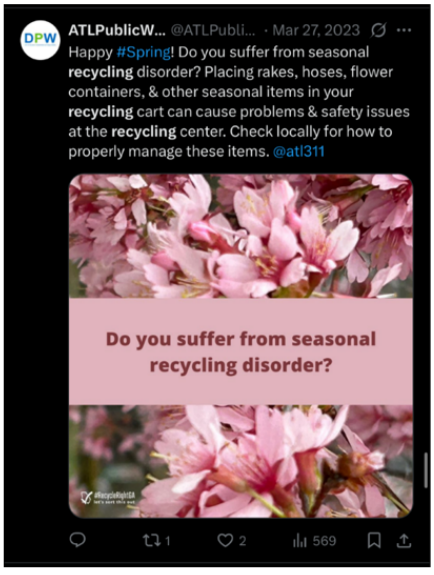
DPW Could Increase Its Public Education & Outreach Efforts

We reviewed social media platforms for recycling education from 2022 through March 2025. We found that Public Works' Instagram and Facebook pages have limited posts related to recycling education, or recycling in general. Posts consisted of communications to followers for Atlanta Recycles Day, an event that offers residents a chance to safely dispose of sensitive documents, recycle tires, small electronics, and single-stream recyclables. Posts also share proper recycling practices. Exhibit 8 shows examples of the department's Instagram and Twitter posts reminding residents how to properly recycle batteries, explaining which seasonal items are not recyclable, and advertising Atlanta Recycles Day.

Exhibit 8: DPW Social Media Posts Related to Recycling



DPW Instagram post on how to recycle old batteries, September 16, 2022



DPW Twitter post on what not to recycle, September 16, 2022

DPW Instagram post to advertise Atlanta Recycles Day, February 15, 2025

The C40 Cities Climate Leadership Group is a set of major cities around the world that have committed to fighting climate change. The organization provides a knowledge hub of resources for cities wanting to address climate change. The C40 Knowledge Hub states that the foundation behind successful recycling and waste diversion is recycling education, recycling accessibility, and implementing policies and incentives for residents. To further boost recycling rates, C40 recommends developing targeted, engaging communications campaigns. **We recommend that the Public Works commissioner design an education campaign to improve participation, making sure to specifically target the service areas with lower recycling participation.** According to the Public Works

deputy commissioner, industry standards recommend one to three year educational campaigns to improve recycling participation and practices.

Glass Is Not Typically Accepted by Other Metro Jurisdictions

The City of Atlanta provides one recycling cart for all recyclables, including glass; the City of Atlanta collects all recyclables in a single pickup. Atlanta uses a vendor to process recyclables, and that vendor subcontracts out glass processing. In calendar year 2024, the city had recycled 1,789 tons of glass, accounting for 9% of the total recycling tonnage for the year.

We surveyed local areas to determine the jurisdictions that accept glass. We reviewed recycling programs within the City of Decatur, East Point, Dekalb County, Cobb County, Fulton County, and Gwinnett County. Of those six jurisdictions, only the City of Decatur offers curbside collection of glass; however, it does not utilize single-stream recycling. It provides residents with two recycling carts for curbside collection. One recycling cart is designated for paper, plastic containers, cartons, and cans, while the other is specifically for glass.

The remaining jurisdictions do not offer curbside collection for glass. The "Keep North Fulton Beautiful" organization released a public service announcement to residents to explain challenges of accepting glass recycling. Glass is abrasive and can damage machinery used to sort commodities for single-stream processing. Also, the technology used to increase recovery of glass requires capital investment and material recovery facilities are reluctant to incur those expenses due to market fluctuations.

Material Recovery Facilities Are Reluctant to Recycle Glass

According to Pratt, the city's recycling contractor, glass content in one ton of single-stream recycling is counted against the value of the composite market value, because the cost of processing glass is typically higher than the value of the recycled glass. Sorting glass from other materials in single-stream recycling requires additional equipment and labor, adding to the overall processing cost, and glass can also contaminate and reduce the value of other recyclables. In Pratt's quarterly composition audits, glass falls under the "fines" category, which consists of small materials that pass through conveyor belts in processing facilities, including crushed glass.

While glass collection poses challenges, the Glass Packaging Institute promotes significant environmental benefits of recycling glass because it is produced from raw materials. The Institute states that in some cases, up to 80% of recycled glass is made into new glass products. Greenhouse gases, like carbon dioxide, are reduced for every six tons of recycling glass. Also, over a ton of natural resources are conserved for every ton of glass, but with single-stream recycling, only about 40% of glass recycling is accepted, partially due to comingling and improper recycling.

The interim deputy commissioner and director of Public Works noted an improvement in overall residents' satisfaction for single-stream glass collection and said the City of Atlanta is the leader in glass collection for local jurisdictions. **To ensure that the city ensures that continuing to recycle glass is also cost-effective, we recommend that the Department of Public Works conduct an economic feasibility study as part of the solid waste management plan update to determine the net cost and benefit of accepting glass in its single-stream curbside recycling.**

Objective 2: What is the city's goal for recycling?

To improve participation in its recycling program, the city should consider developing an attainable waste diversion goal. The city's waste diversion efforts are documented in the Department of Public Works' 2017 Solid Waste Management Plan, which covers a 10-year planning period. Public Works staff are currently searching for consultants to develop the updated version in 2028. The plan mostly aligns with guidance set out in the Georgia Comprehensive Solid Waste Act. The act provides the legal framework for local governments to develop and manage solid waste plans and requires local governments to report annually on solid waste generation and disposal costs. The act suggests that solid waste plans include at least 10 years of disposal capacity, provide strategies for waste reduction and recycling, outline methods for handling special waste items, outline methods for public education on waste diversion, and provide for data reporting.

The city's current Solid Waste Management Plan was developed in 2016. The plan states that the city has a goal of diverting 90% of waste from landfills by 2025; however, a Public Works deputy commissioner said this goal included waste in addition to single-family residential—including commercial, construction and debris, multi-family, and other waste generation. Following an

administrative change, this goal is no longer in place. The OSR (Mayor's Office of Sustainability & Resilience) plays a key role in shaping the city's environmental efforts, promoting policies, programs, and initiatives related to sustainability, and climate resilience., but neither the Department of Public Works nor OSR have publicly stated goals for recycling or waste diversion. The OSR is an executive office that primarily focuses on clean energy goals; the chief sustainability officer said that the office does not have goals or metrics specific to recycling. The Public Works commissioner told us the department is currently working to set recycling metrics.

City's Recycling Plan Would Be More Effective with a Waste Diversion Goal

The C40 Cities Climate Leadership Group's recommends using data analytics tools to assess waste and developing engaging, sustainable community education campaigns tailored to local residents. However, without a publicly stated waste diversion goal, the city risks stagnation in its recycling efforts.

By setting a measurable and attainable waste diversion goal, the City of Atlanta can affirm its commitment to sustainability and work toward a realistic waste diversion rate. If the Department of Public Works establishes clear internal metrics and consistently monitors progress, the city can keep recycling efforts at the forefront of its waste diversion initiatives. **We recommend that the Department of Public Works set a realistic waste diversion goal for curbside collection services in the upcoming solid waste management plan update.**

Objective 3: Are there participation barriers for the city's recycling program?

Public Works Has Not Enforced the Multi-Family Recycling Ordinance

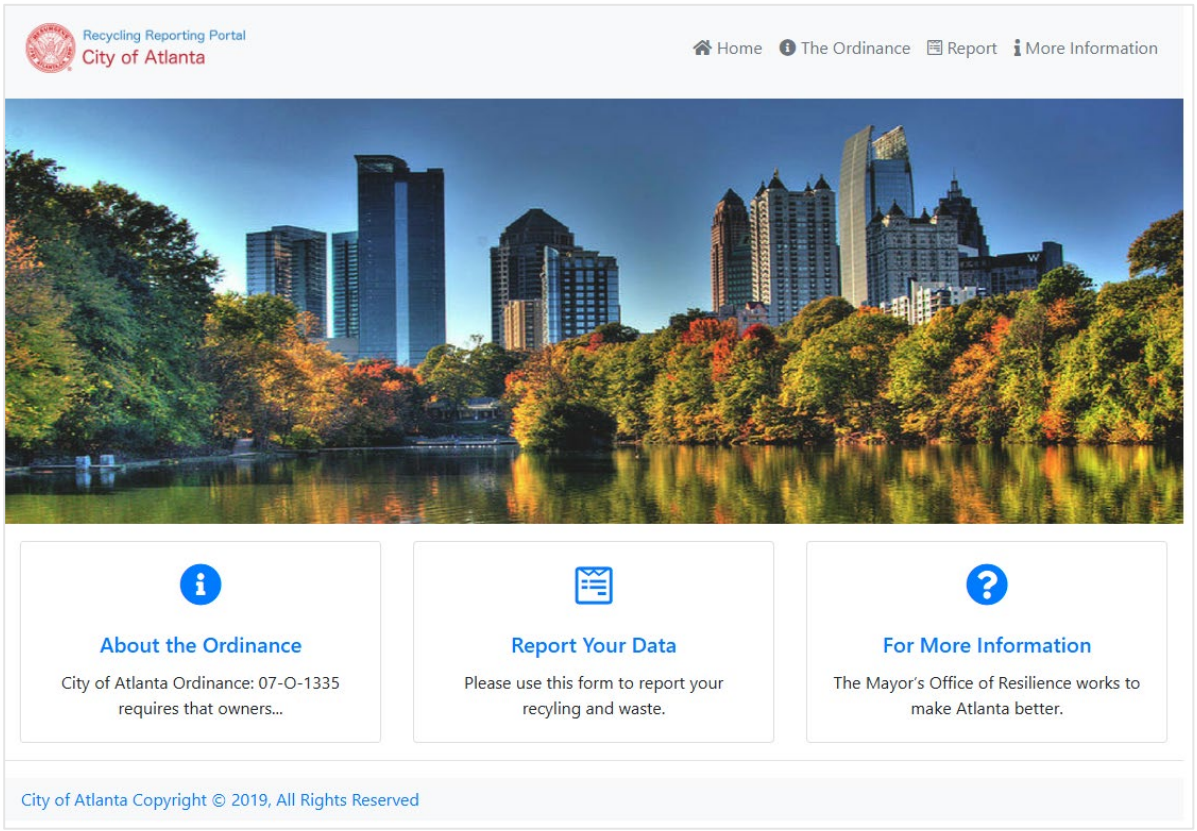
The City of Atlanta established an ordinance requiring that property owners of multi-family dwellings provide recycling collection services for residents. City code Section 130-38 states that the owners of any multi-family dwelling, including public housing, consisting of six or more living units, or the owners' association of condominiums or townhouses consisting of six or more living units, shall furnish commercial containers for the collection of recyclables,

including, at a minimum, the materials the city collects as part of its curbside recycling program, which materials include glass, plastics, newspapers, and aluminum cans. The capacity of the containers shall be adequate to hold the recyclable material of residents of the multi-family dwelling and shall be of a size not less than three gallons multiplied by the number of living units. About 50% of the city's occupied dwellings are multifamily residences.

About 50% of the City's Occupied Dwellings Are Multifamily Residences

Additionally, multi-family property owners or management are responsible for securing and managing contracts for providing recycling collection services for all building locations, providing clearly marked collection bins for recyclable materials and containers for transporting the materials off site, and reporting recycling tonnage data to the city using the reporting portal (see Exhibit 9).

Exhibit 9: Property Owners Report Tonnage Data Using Recycling Reporting Portal



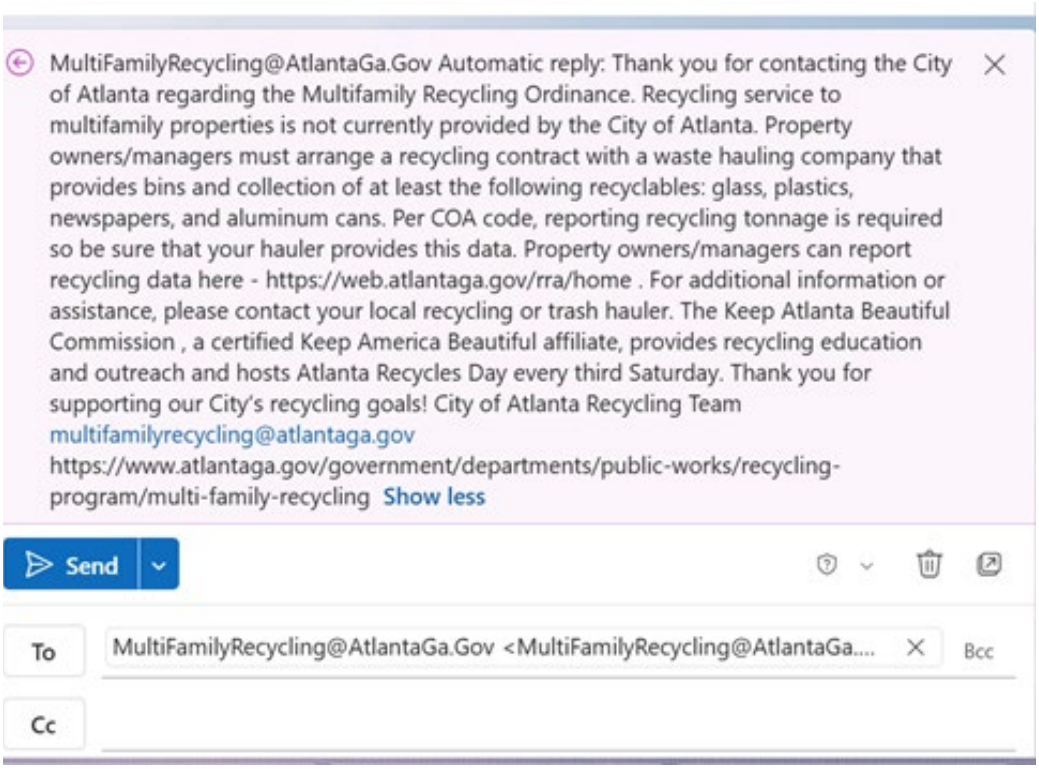
Source: Screenshot of City of Atlanta Recycling Reporting Portal (3/27/2025)

City Ordinance 07-O-1335, which established the multi-family recycling requirement, was established to clearly define the recycling requirements and city's enforcement powers regarding multi-family dwellings. It states that the original ordinance intent was to require multi-family property owners to participate in city efforts to recycle. The ordinance states that an increasing number of city residents live in multi-family developments and providing residents with tools to recycle is crucial. As more landfills are being closed and the state and city run out of disposal locations, recycling should be convenient for multi-family residents. If the ordinance for multi-family residence property owners is not enforced, about half of the city's residences may not have access to recycling services, sending more waste to the landfill.

We found that the multi-family ordinance is not being enforced. Neither the Department of Public Works nor the Mayor's Office of Sustainability and Resilience is monitoring the property owners' recycling tonnage reports. Ordinance 07-O-1335 requires property owners to report tonnage data. But we found that the portal is linked to an unmonitored mailbox, resulting in an ineffective reporting process and leaving the city without accurate insights into multi-family recycling.

Also, contacting the email address provided to property owners triggers an autoreply with vague communications about the ordinance and reporting (see Exhibit 10). The chief sustainability officer suggested collaboration with the deputy commissioner of the Department of Public Works to develop an understanding of the ordinance and modify the enforcement plan. As of January 2025, there had been no updates to the enforcement plan. Department leadership agreed that an enforcement plan is needed but noted that enforcing the ordinance will require additional funding, staffing, and collaboration with other city departments.

Exhibit 10: Contacting the Email Address Provided to Property Owners Triggers an Autoreply with Vague Communications about the Ordinance and Reporting



Source: Screenshot of Unmonitored Mailbox's Auto-Reply (3/27/2025)

We recommend that the Department of Public Works develop an enforcement plan for the multi-family ordinance that includes at minimum: assignment of portal monitoring to a group, confirmation of receipt of report from portal, periodic inspections or documentation of contract with vendor to ensure residents have access to recycling, and consideration of any needed changes to the ordinance.

Recommendations

To improve recycling participation and waste diversion, the commissioner of the Department of Public Works should:

1. develop written policies and procedures for uploading tickets and accurately entering tonnage data into Rubicon
2. develop a periodic quality control process to ensure Rubicon data is accurate and complete
3. develop a reconciliation process to ensure invoices match tonnage data and review market rates and rebate amounts before approving invoices for payment
4. design an education campaign to improve participation, making sure to target the service areas with a lower recycling rate
5. set a realistic waste diversion goal for curbside collection services in the upcoming solid waste management plan update
6. conduct an economic feasibility study as part of the solid waste management plan update to determine the net cost and benefit of accepting glass in its single-stream curbside recycling
7. develop an enforcement plan for the multi-family ordinance that includes at minimum: assignment of portal monitoring to a group, confirmation of receipt of report from portal, periodic inspections or documentation of contract with vendor to ensure residents have access to recycling, as well as consideration of any changes needed to the ordinance

Appendix A: Management's Response

Report Title: Recycling	**Project No.** 24.06

Recommendation #1:
We recommend that the Public Works Commissioner develop written policies and procedures for uploading tickets and accurately entering tonnage data into Rubicon.

Risk Category:	**Recommendation Priority:**	**Auditee Response:**
Information Systems	Medium	Agree

Related Finding(s):

- We found inaccuracies in how some Public Works staff entered recycling tonnage from tickets into the department's route management system, Rubicon.
- Inaccuracies were caused by manual data entry errors and tonnage that was not entered for some routes. There were also some instances in which the Rubicon tonnage amount was double the amount stated on the ticket and showed two disposal trips, but we only found one ticket for those particular routes.

Proposed Action:
DPW fully agrees with the recommendation to develop written policies and procedures for uploading tickets and accurately entering tonnage data into Rubicon. Ensuring data accuracy and consistency is critical for operational transparency and performance measurement. We are currently in the process of formalizing these standard operating procedures (SOPs) through close collaboration between our Command Center and Operational Leaders. This joint approach ensures that the procedures are both practical and aligned with on-the-ground workflows. The SOPs will standardize the ticket uploading process across all transfer stations and introduce verification steps to minimize data entry errors. We are also working closely with Rubicon representatives to optimize system use and provide additional training to field staff and supervisors responsible for data input. These efforts will enhance data integrity and support more informed decision-making across the Department.

Name & Title of Business Owner:	**Current Status:**	**Estimated Implementation Date Month/Year):**
Deputy Comm'r Keith Robinson and Dir. Rasheda McGhee	Started	12/2025

Recommendation #2: We recommend that the Public Works Commissioner develop a periodic quality control process to ensure Rubicon data is accurate and complete.		
Risk Category: Information Systems	**Recommendation Priority:** Medium	**Auditee Response:** Agree
Related Finding(s): • We found that for one sampled week of service, the tonnage in Rubicon's data was lower than the tonnage on the Pratt invoices and tonnage tickets. • Inaccuracies were caused by manual data entry errors and tonnage that was not entered for some routes. There were also some instances in which the Rubicon tonnage amount was double the amount stated on the ticket and showed two disposal trips, but we only found one ticket for those particular routes.		
Proposed Action: DPW agrees with the importance of establishing a periodic quality control process to ensure the accuracy and completeness of data in Rubicon. As part of our broader commitment to data-driven operations, we are already in the process of building out a structured quality assurance protocol. This effort is being driven through active collaboration between our Command Center and Data Analytics team, ensuring that both operational context and analytical rigor inform the process. We are implementing regular audits, exception reporting, and data validation checks to identify discrepancies, address root causes, and enhance overall data reliability. This quality control framework will be embedded into our routine operational cadence to ensure it is consistent, actionable, and sustainable.		
Name & Title of Business Owner: Deputy Comm'r Keith Robinson and Dir. Rasheda McGhee	**Current Status:** Started	**Estimated Implementation Date Month/Year):** 12/2025

Recommendation #3: We recommend that the Public Works Commissioner develop a reconciliation process to ensure invoices match tonnage data and review market rates and rebate amounts before approving invoices for payment.		
Risk Category: Asset Misappropriation	**Recommendation Priority:** Medium	**Auditee Response:** Agree
Related Finding(s): • We reviewed the recycling processors' monthly reports of the city's recycling invoices from February to December 2024 and found that the vendor overcharged the city in February, March, April, and November 2024, by a total of $3,592.		
Proposed Action: DPW is fully aligned with the recommendation to develop a reconciliation process that ensures invoices accurately reflect tonnage data, and to consistently review market rates and rebate amounts prior to invoice approval. We are actively advancing this work by integrating data from Rubicon with financial records to enable cross-verification of invoiced tonnage. This reconciliation process is being developed collaboratively by our Finance team, Contracts team, Command Center, and Data Analytics staff to ensure both fiscal oversight and operational accuracy. Additionally, we are working to establish a formal review mechanism for market rates and rebate structures so that any payment issued reflects current conditions and contract terms. These measures are aimed at strengthening accountability, preventing discrepancies, and ensuring that public resources are managed responsibly.		
Name & Title of Business Owner: Deputy Comm'r Kanika Greenlee and Sr. Dir. Melissa Davis	**Current Status:** Started	**Estimated Implementation Date Month/Year):** 12/2025

Recommendation #4: We recommend that the Public Works Commissioner design an education campaign to improve participation, making sure to target the service areas with a lower recycling rate.		
Risk Category: Service Delivery	**Recommendation Priority:** Low	**Auditee Response:** Agree
Related Finding(s): • The city recycles about 23% of its residential waste, excluding yard trimmings. Recycling rates, however, vary by service area. We found that the recycling rates for Service Areas 1, 2, and 3 fall significantly below both the national benchmark of 26% and the 25% achieved in Service Area 5.		
Proposed Action: DPW fully supports the recommendation to design an education campaign aimed at improving recycling participation, particularly in service areas with lower recycling rates. Increasing public awareness and engagement is critical to the long-term success of our diversion goals. We are currently developing a targeted outreach strategy led by a collaboration between our Communications Team and our KABC Team having data supported by our Data Analytics Team. This campaign will be data-informed, using recycling performance metrics to focus efforts on underperforming zones, and will emphasize practical, accessible messaging to encourage resident participation. Additionally, we are exploring partnerships with community organizations and leveraging existing citywide events to broaden our reach and build community trust. This effort is part of our broader commitment to environmental stewardship and improving the effectiveness of our recycling program.		
Name & Title of Business Owner: Deputy Comm'r Kanika Greenlee and Dir. Kim Rankins	**Current Status:** Started	**Estimated Implementation Date Month/Year):** 12/2025

Recommendation #5: We recommend that the Public Works Commissioner set a realistic waste diversion goal for curbside collection services in the upcoming solid waste management plan update.		
Risk Category: Service Delivery	**Recommendation Priority:** Low	**Auditee Response:** Agree
Related Finding(s): • The Department of Public Works developed a solid waste management plan in 2017 that described its waste diversion efforts but did not include a waste diversion goal for curbside recycling.		
Proposed Action: DPW fully supports the recommendation to establish a realistic waste diversion goal for curbside collection services as part of the upcoming Solid Waste Management Plan update. Setting a clear and attainable diversion target is essential for tracking progress, guiding operational improvements, and aligning resources effectively. We are currently evaluating national benchmarks, peer city performance, and our own capacity to inform the development of a data-driven, achievable goal. This effort is being coordinated across our Solid Waste leadership, Data Analytics team, Command Center, and external planning consultants to ensure the goal reflects both ambition and operational feasibility. The updated plan will also outline the strategies and investments necessary to support progress toward the diversion target, reinforcing our commitment to sustainable waste management practices.		
Name & Title of Business Owner: Deputy Comm'rs Kanika Greenlee and Keith Robinson	**Current Status:** Started	**Estimated Implementation Date Month/Year):** 12/2025

Recommendation #6: We recommend that the Public Works Commissioner conduct an economic feasibility study as part of the solid waste management plan update to determine the net cost and benefit of accepting glass in its single-stream curbside recycling.		
Risk Category: Market	**Recommendation Priority:** Low	**Auditee Response:** Agree
Related Finding(s): • The City of Atlanta accepts glass in its single-stream curbside recycling program, but glass is not typically accepted in single-stream recycling by other local jurisdictions. The City of Decatur, East Point, Dekalb County, Cobb County, Fulton County, and Gwinnett County do not accept glass in their single-stream recycling programs. • According to the city's recycling contractor, glass content in one ton of single-stream recycling is counted against the value of the composite market value, because the cost of processing glass is typically higher than the value of the recycled glass.		
Proposed Action: DPW agrees with the recommendation to conduct an economic feasibility study to evaluate the costs and benefits of including glass in our single-stream curbside recycling program. As part of the upcoming Solid Waste Management Plan update, we are actively planning to assess the operational, financial, and environmental implications of reintroducing or modifying glass collection. This analysis will include input from recycling processors, market research, and our internal operations and finance teams to ensure a comprehensive understanding of both short- and long-term impacts. The findings will help inform a sustainable policy decision that balances diversion goals with fiscal responsibility and service efficiency.		
Name & Title of Business Owner: Deputy Comm'rs Kanika Greenlee and Keith Robinson	**Current Status:** Started	**Estimated Implementation Date Month/Year):** 12/2025

Recommendation #7:
We recommend that the Public Works Commissioner develop an enforcement plan for the multi-family ordinance that includes at minimum: assignment of portal monitoring to a group, confirmation of receipt of report from portal, periodic inspections or include documentation of contract with vendor to ensure residents have access to recycling, as well as consideration of any changes needed to the ordinance.

Risk Category:	**Recommendation Priority:**	**Auditee Response:**
Legal and Regulatory Compliance	Medium	Agree

Related Finding(s):

- We found that the multi-family ordinance is not being enforced. Neither the Department of Public Works nor the Mayor's Office of Sustainability and Resilience is monitoring the property owners' recycling tonnage reports.
- The ordinance states that an increasing number of city residents live in multi-family developments and providing residents with tools to recycle is crucial.

Proposed Action:

DPW supports the recommendation to develop a comprehensive enforcement plan for the multi-family recycling ordinance, with a few important caveats reflecting unique operational and jurisdictional challenges outlined below. We agree that effective enforcement is essential to ensuring compliance and improving recycling participation across multi-family communities.

We are actively in the process of designing this enforcement plan, which includes the clear assignment of responsibilities such as portal monitoring, confirmation of report receipt, and periodic inspections. This effort is being led through collaboration between our SWEET Team, Solid Waste leadership, and Contract Management teams to ensure appropriate oversight and accountability. Additionally, we are reviewing the ordinance itself to determine whether revisions are necessary to strengthen enforcement mechanisms and support broader compliance.

To successfully implement this recommendation, the following considerations must be addressed:

- **Ordinance Review:** A comprehensive review of the multi-family recycling ordinance should be conducted in partnership with the Office of Sustainability and Resilience (OSR) to identify and implement necessary updates.
- **Limited DPW Service Coverage:** It is important to note that DPW currently services only a small portion of the multi-family recycling sector—estimated at 10–15% of the total market share—limiting our direct operational influence.
- **City Planning Stakeholder Engagement:** The Department of City Planning should be engaged as a key stakeholder, particularly to address recycling implementation requirements for new multi-family developments.
- **Resource Needs:** Given that approximately 50% of City of Atlanta residents live in multi-family units, any meaningful enforcement approach will likely require an increase in SWEET Team staffing to support expanded monitoring and compliance activities.
- **Portal Management:** Historically, the reporting portal referenced in this recommendation was maintained by the OSR Team. Clear ownership and ongoing technical support for the portal will be essential to ensure consistent usage and reliable data.

By addressing these considerations as part of our enforcement planning process, we can develop a robust and sustainable strategy that supports the City's recycling goals while acknowledging operational realities.		
Name & Title of Business Owner: Deputy Comm'rs Kanika Greenlee and Keith Robinson and Also Sr. Dir. Melissa Davis	**Current Status:** Started	**Estimated Implementation Date Month/Year):** 12/2025

Appendix B: Scope and Methodology

We conducted this audit in accordance with generally accepted government auditing standards. Our audit focused on the curbside recycling collection program and included a review of both single-family and multi-family residential recycling.

Our audit methods included:

- reviewing city code and state law for applicable legislation
- reviewing the recyclables processing contract
- reviewing recycling education materials from Public Works
- reviewing best practices for improving recycling participation
- reviewing the city's 2017 solid waste management plan
- researching recycling programs in local jurisdictions
- touring the material recovery facilities managed by the city's recyclables processing vendor
- interviewing department staff to understand recycling processes and education campaigns
- analyzing tonnage and invoice data from 2016 through 2024 from Pratt Inc. and the city's records in Rubicon

Generally accepted government auditing standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.