

Gwinnett County Sustainability Commission**Wednesday, October 19, 2022 – 4:30pm**

Gwinnett Justice and Administration Center
75 Langley Drive, Lawrenceville, GA 30046
Conference Room C (Second Floor)

Present: Laura Hernandez, Dr. James Nolan, Krupesh Patel, Dr. Marshall Shepherd

Absent: Daniel Hilton

1. Call to Order

Laura Hernandez, Chairperson, called the meeting to order and welcomed everyone at 4:30pm.

- The Gwinnett County Sustainability Commission Annual Report: 2022 will be posted with today's meeting minutes.

2. Approval of Agenda

{Action: Approved: Shepherd; Second: Patel; Vote: 4-0; Hernandez-Yes; Nolan-Yes; Patel-Yes; Shepherd-Yes; Absent: Hilton}

3. Approval of Minutes

The September 21, 2022, meeting minutes were approved.

{Action: Approved: Patel; Second: Shepherd; Vote: 4-0; Hernandez-Yes; Nolan; Patel-Yes; Shepherd-Yes; Absent: Hilton}

4. Introduction of Dr. James Nolan, New District 4 Appointee

5. Planning Discussion for GCSC's Annual Report Presentation

The GCSC will present the Gwinnett County Sustainability Commission Annual Report: 2022 to the Board of Commissioners, County Administrator, and Deputy County Administrator on November 1, 2022 at 3:00pm.

6. Waste Reduction and Recycling Update

Susan Paul, Gwinnett County Fiscal and Solid Waste Management Division Director, and Christopher Fetterman, Gwinnett County Solid Waste Management Section Manager, presented an overview of Gwinnett County's waste reduction and recycling program. Commission members discussed concerns with the prevalence of contamination with the County's recycling stream and highlighted yard waste composting and multifamily recycling opportunities. GCSC members received a draft of the County's Sustainability Plan to review the Recycling & Waste Reduction section and return comments to David Mogge by Wednesday, October 26, 2022.

7. Discussion on Battery Recycling

Schelly Marlatt, Executive Director, Gwinnett Clean & Beautiful and Susan Paul presented challenges and current approaches for recycling batteries in the County. When the Commission members were asked to advise the best approach for the County to recycle more batteries and other materials from the community, response was to open Centers for Hard to Recycle Materials (CHaRM) at convenient locations across the county, easily accessible and available year-round, to accept household hazardous waste, hard-to-recycle materials, and traditional recyclables.

8. Public Comments

No members of the public provided comments.

9. Adjournment

The meeting was adjourned at 6:07pm.

{Action: Approved: Shepherd; Second: Patel; Vote: 4-0; Hernandez-Yes; Nolan-Yes; Patel-Yes; Shepherd-Yes; Absent: Hilton}



Gwinnett County Sustainability Commission Annual Report: 2022

First Edition | September 2022

Laura Hernandez, Chair - Chairwoman's Appointment

Daniel Hilton, Vice-Chair - District 1

Krupesh Patel - District 2

Dr. J. Marshall Shepherd - District 3

ACKNOWLEDGEMENTS

Gwinnett County Board of Commissioners

Nicole Love Hendrickson, Chairwoman
Kirkland Dion Carden, District 1
Ben Ku, District 2
Jasper Watkins III, District 3
Marlene M. Fosque, District 4

Gwinnett County Government Environmental Sustainability Team

The Gwinnett County Sustainability Commission appreciates the staff members leading and supporting Gwinnett County Government's internal Environmental Sustainability Team and its technical sub-groups, including, but not limited to:

Green Building, Energy Efficiency, and Green Power

David Mogge, Deputy Director, Department of Support Services

Sustainable Sites, Trees & Greenspace, and Land Use

Marcus Canada, Section Manager, Department of Planning & Development
Mark Patterson, Deputy Director, Department of Community Services

Water Efficiency and Conservation

John Butler, Outreach Manager, Department of Water Resources

Education and Outreach

Jeanie Donaldson, Division Director, Communications Department

Environmentally Friendly Purchasing

Schelley McWhorter, Purchasing Associate, Department of Financial Services

Transportation & Air Quality

Tom Sever, Assistant Director, Department of Transportation
Ron Adderley, Deputy Director, Department of Support Services

Recycling & Waste Reduction

Susan Paul, Division Director, Department of Support Services

Other Key Support Staff

Carol Speight, Program Analyst, Department of Support Services



Gwinnett County Sustainability Commission inaugural members: *Laura Hernandez, Chair - Chairwoman's Appointment, Daniel Hilton, Vice-Chair - District 1, Krupesh Patel - District 2, Dr. J. Marshall Shepherd - District 3. Not pictured: Inaugural District 4 appointee Venus Singh.*

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EXECUTIVE SUMMARY

With 437 square miles and nearly one million residents, there is no doubt that Gwinnett County has both the opportunity and the responsibility to be an environmental sustainability leader in the South. Sustainability—a key quality of life and social justice issue—is crucial to prioritize more than ever to best serve our growing and diverse public.

Gwinnett County has begun its journey to leadership, achieving a prestigious designation as one of the Atlanta Regional Commission's (ARC) Platinum Green Communities, but many key sustainability measures remain unmet. Residents and stakeholders expect the County to do more to truly achieve the Gwinnett Standard on environmental stewardship.

The Gwinnett County Sustainability Commission (GCSC) was formed in 2021 as a new citizen board focused on helping the County advance in this space. In the GCSC's first year, inaugural appointees were briefed on the County's progress on sustainability to date. As its immediate next step, the GCSC will support County staff in developing and implementing Gwinnett County's first sustainability strategic plan. Now entering its second year as an active board, the GCSC is seeking to be increasingly recognized by County staff and leadership as an expert resource, with a seat at the table to make a significant positive impact. The GCSC would like to be presented with more opportunities to advise on a wide variety of internal or external County government programs, policies, and initiatives that could have a significant impact on environmental sustainability.

Public Survey

The GCSC played an integral role in designing and launching the first public survey that focused on environmental sustainability in Gwinnett County, run in May to July, 2022. The survey clearly indicated that the people who live, work, study, and play in our community are concerned about the state of the environment: Approximately 85% believe we have “serious” or “dire” environmental problems with which to contend. In addition, nearly 1,000 stakeholders submitted specific ideas, commentary, and concerns related to sustainability in the County. Their feedback points to four top priorities, in rank order: 1) Improving recycling, 2) Curtailing overdevelopment and preventing loss of trees and greenspace, 3) Increasing green transportation, and 4) Enhancing public outreach.

Recommendations

Reiterating its formal recommendation submitted to the Board of Commissioners and County Administrator's Office on August 18, 2022, the GCSC advances as its primary recommendation the hiring of a Director of Environmental Sustainability, reporting directly to the County Administrator, in 2023 to lead Gwinnett County's progress on sustainability. The GCSC also recommends that Gwinnett County Government pursue the following actions within each of the categories identified in the survey as top priorities:

Recycling & Waste Reduction

- Invest in improving recycling education.
- Establish staffed recycling drop-off centers.
- Restore convenient access to glass recycling.
- Take action to reduce single-use plastic.

Overdevelopment & Loss of Trees and Greenspace

- Evaluate and pursue relevant opportunities to mitigate tree and habitat loss as a result of overdevelopment.

Green Transportation

- Assess County carbon emissions using the new Drawdown Georgia Greenhouse Gas (GHG) Emissions Tracker and align with Drawdown Georgia solutions strategies.
- Prioritize the development of bike- and pedestrian-friendly corridors and increase access to electric vehicle charging infrastructure.

Public Outreach

- Launch a business-focused sustainability survey.
- Add a GCPS student seat to the GCSC.

ABOUT THE GWINNETT COUNTY SUSTAINABILITY COMMISSION (GCSC)

Creation

The Gwinnett County Board of Commissioners approved a Resolution creating the Gwinnett County Sustainability Commission (GCSC) on April 20, 2021.

Purposes

The purposes of the GCSC include:

- Reviewing and considering the environmental sustainability needs of Gwinnett County now and in the future based upon existing and projected growth patterns.
- Reviewing and assessing environmental sustainability options for Gwinnett County, including those suggested by members of the community.
- Reviewing and assessing the feasibility of differing environmental sustainability options in Gwinnett County.
- Reviewing and assessing options for reducing Gwinnett County's environmental impact through its buildings, fleets, and practices.
- Providing public education and outreach on sustainability issues and encourage the community to reduce its environmental impact.

Objectives

The objectives of the GCSC include:

- Upon request, reviewing and providing comments on any sustainability plans in which the County is currently engaged, or in which the County plans to engage.
- Upon request, assessing current and planned infrastructure and programs with regard to their level of environmental sustainability, while considering the current and future needs of Gwinnett County's residents, businesses, and visitors.
- Upon request, assessing and providing recommendations for public outreach and education on sustainability issues.
- Preparing at least one annual written report, including recommendations, concerning the County's existing sustainability practices and programs with the goal of maintaining the Gwinnett Standard of being an environmental leader of local governments in Georgia.

THE GCSC'S FIRST YEAR IN REVIEW (2021-2022)

Inaugural appointees to the Gwinnett County Sustainability Commission held their first meeting on Thursday, August 5, 2021, and agreed upon a monthly meeting cadence. The GCSC held 11 meetings between August 2021 and August 2022.

Activities to Date

To familiarize the GCSC with the County's sustainability infrastructure, progress, and opportunities, introductory briefings were provided on a variety of topics, including:

- Progress of the Environmental Sustainability Team, a staff group that was appointed by, and reports directly to, the County Administrator, in the areas of:
 - Green Building, Energy Efficiency, and Green Power
 - Water Efficiency and Conservation
 - Sustainable Sites, Trees & Greenspace, and Land Use
 - Transportation & Air Quality
- 2020 Comprehensive Parks and Recreation Master Plan
- Drawdown Georgia
- Gwinnett County Water Tower
- Ready for 100
- The Ray
- The structure for an Office of Sustainability within other local governments

Beginning in January 2022, the GCSC began partnering with staff on a plan to gather public input for the County's first sustainability survey. GCSC members assisted with:

- Reviewing public input gathered in past County planning exercises
- Providing feedback on topics on which more public input may be needed
- Strategizing approaches to gather diverse and inclusive feedback
- Reviewing and revising survey questions
- Promoting the survey
- Tabling at the Multicultural Festival
- Analyzing survey results

On August 18, 2022, the GCSC submitted its first formal recommendation to the Board of Commissioners and County Administrator's Office regarding the hiring of a Director of Environmental Sustainability (reporting directly to the County Administrator) in 2023 to lead Gwinnett County's progress on sustainability. The Director of Environmental Sustainability, as well as any support staff, would take the lead on managing, coordinating, facilitating, and advising on the planning, development, implementation, monitoring, and improvement of County policies and programs pertaining to sustainability. For more information on this proposal, please see the [Recommendations](#) section of this report.

Board Member Updates

Laura Hernandez (Chairwoman's Appointment) was elected Chair on August 25, 2021, and Daniel Hilton (District 1) was elected Vice-Chair on October 20, 2021, both serving in these positions through December 2022. In May 2022, the initial one-year terms of Daniel Hilton and Dr. J Marshall Shepherd (District 3) were extended to May 2024. District 4 appointee Venus Singh resigned in July 2022 and the position is currently vacant.

Going Forward

As its primary next step, the GCSC will assist County staff in developing and implementing Gwinnett County's first sustainability strategic plan. The GCSC will consider effective outreach measures, including the possibility of establishing subcommittees, to foster ongoing citizen engagement and build public support for sustainability programs and priorities identified in the County's sustainability strategy.

To round out its understanding of the Environmental Sustainability Team's progress and activities, the GCSC plans to request briefings from the final two technical sub-groups: Recycling & Waste Reduction and Environmentally Friendly Purchasing. The GCSC will also continue to request guest presentations by community and regional organizations whose mission and activities align with the County's interests in sustainability. Additionally, the GCSC will seek to collaborate with other relevant boards and commissions, such as the Community Outreach Advisory Board, Development Advisory Committee, Gwinnett County Transit Advisory Board, and Tree Advisory Committee.

As a more established commission entering its second year, the GCSC hopes to be increasingly recognized by County staff and leadership as an available resource and to receive more opportunities to respond to requests related to 1) assessing current and planned infrastructure and programs with regard to their level of environmental sustainability and 2) assessing and providing recommendations for public outreach and education on sustainability issues. In an ideal future state, the GCSC will have the opportunity to be briefed and advise on each internal or external County government program that could have a significant impact on sustainability. To this end, the GCSC sees a need to establish a flexible framework for interested GCSC members to engage and advise on County sustainability matters on a regular basis between monthly meetings, providing expert guidance and timely recommendations on pertinent issues and projects. The GCSC will work on this with support staff in 2022-2023.

HOW GWINNETT COMPARES TO ITS PEERS ON SUSTAINABILITY

ARC Green Communities Certification

Points-based certification in the Atlanta Regional Commission’s (ARC) voluntary Green Communities program is a quick determinant of local governments’ progress on sustainability, as well as remaining areas of opportunity to advance sustainability. By submitting documentation of its policies and progress in up to 77 actionable measures across the ARC-defined categories of Green Building, Energy Efficiency, Green Power, Water Efficiency, Trees & Greenspace, Transportation & Air Quality, Recycling & Waste Reduction, Land Use, and Education, a local government receives a score and a level of Green Communities certification.

The ARC was the first entity in the U.S. to promote sustainability through green certification, and Gwinnett County was the first county in the region to achieve the highest (Platinum) certification level in the Green Communities program. Today in metro Atlanta, [17 local governments](#)—11 cities and six counties—are currently certified under the Green Communities program:

Platinum	Gold	Silver	Bronze
<i>330-495 points</i>	<i>280-329 points</i>	<i>230-279 points</i>	<i>175-229 points</i>
Gwinnett County Cobb County City of Norcross City of Decatur City of Roswell City of Woodstock	City of Alpharetta City of Chamblee City of Dunwoody City of Sandy Springs	Douglas County City of Douglasville City of Milton	City of Peachtree Corners DeKalb County Fulton County Cherokee County

In May 2022, Gwinnett County staff submitted an application to ARC for recertification, including all previous measures awarded (330 points) and six new measures (for an additional 35 points), applying for a total of 365 out of 495 possible points.

ARC Green Communities measures for which Gwinnett County cannot yet qualify are:

Green Building

Measure 6: Offer incentives for affordable and workforce housing entities to certify affordable housing as EarthCraft House, EarthCraft Multifamily, ENERGY STAR or LEED for Homes. (5 points)

Water Use Reduction & Efficiency

Measure 20: Develop a policy and schedule for the replacement of inefficient toilets, urinals, and faucets within government buildings with ultra-high-efficiency plumbing fixtures that meet the following standards: WaterSense labeled toilets

using 1.1 gpf or less, urinals using 0.125 gpf or less, and faucets/aerator retrofits using 1.0 gpm or less. (10 points)

Measure 26: Adopt local amendments to the Georgia State Minimum Standard Plumbing Code that requires ultra-high efficiency standards for residential bathroom plumbing fixtures. (5 points)

Trees & Greenspace

Measure 27: Meet at least one of the following benchmarks for greenspace: (1) have 20 acres per 1,000 residents, (2) have at least 8 percent of total land protected for greenspace, or (3) all residents live within ½ mile walking distance to a park. (10 points)

Measure 28: Adopt a government no net loss of trees policy for government property. (10 points)

Measure 32: Become a Tree City USA (requires Tree Board or dept to develop a comprehensive tree management program, tree care ordinance, a community forestry program with an annual budget of at least \$2 per capita, Arbor Day observance and proclamation). (5 points)

Measure 34: Adopt a community forest master plan. (5 points)

Measure 37: Develop, adopt and implement a local food systems plan to influence and shape how food is produced, processed, distributed, consumed and disposed of within the community. (5 points)

Measure 38: Become a Bee City USA or a Community Wildlife Habitat. (5 points)

Transportation & Air Quality

Measure 39: Adopt a Commute Option program for employees that supports alternatives to driving alone or driving at the peak. (10 points)

Measure 42: Retrofit gasoline-powered government fleet vehicles to use alternative fuels. (5 points)

Measure 43: Produce and/or purchase alternative fuel(s) for government fleet vehicles. (5 points)

Measure 47: Require end-of-trip bicycle facilities at all community facilities. (5 points)

Measure 49: Become a Bicycle Friendly Community at the Bronze level or higher. (5 points)

Measure 50: Become a Walk Friendly Community at the Bronze level or higher. (5 points)

Recycling & Waste Reduction

Measure 53 Implement environmentally preferable purchasing program. (10 points)

Measure 62: Implement organics and yard debris collection for composting and other beneficial uses. (5 points)

Education

Measure 72: Establish a historical baseline of energy (electricity and natural gas) and water usage in government buildings and put an ongoing tracking and reporting system into place to monitor and decrease usage long-term. (remaining 5 points out of 10)

Measure 74: Develop, adopt and implement a sustainability plan. (10 points)

Measure 76: Develop and implement an outreach program to engage the business community around the benefits of adopting a sustainability ethic and collaborate on sustainability issues. (5 points)

The ARC is currently reviewing Gwinnett County's recertification application, with site visits taking place September through October, communities notified of the final decisions in November, and Certified Green Communities announced in January 2023.

Sustainability Planning

The [City of Atlanta](#), [City of Decatur](#), and [Fulton County](#) are at the forefront of making sustainability a priority through their implementation of sustainability strategic plans that allow for transparency, accountability, and goal-setting. To date, Gwinnett has included sustainability-related initiatives within various plans, but these have not historically been consolidated or easily accessible. The other Platinum Green-certified county, Cobb County, does not have an accessible sustainability plan or a commission.

For Gwinnett County Government, solely relying on the ARC for benchmarking our sustainability progress should not be the standard. Moving into the future, Gwinnett should be out in front leading on sustainability, including welcoming greater transparency and diverse stakeholder involvement to highlight our blind spots and opportunities.

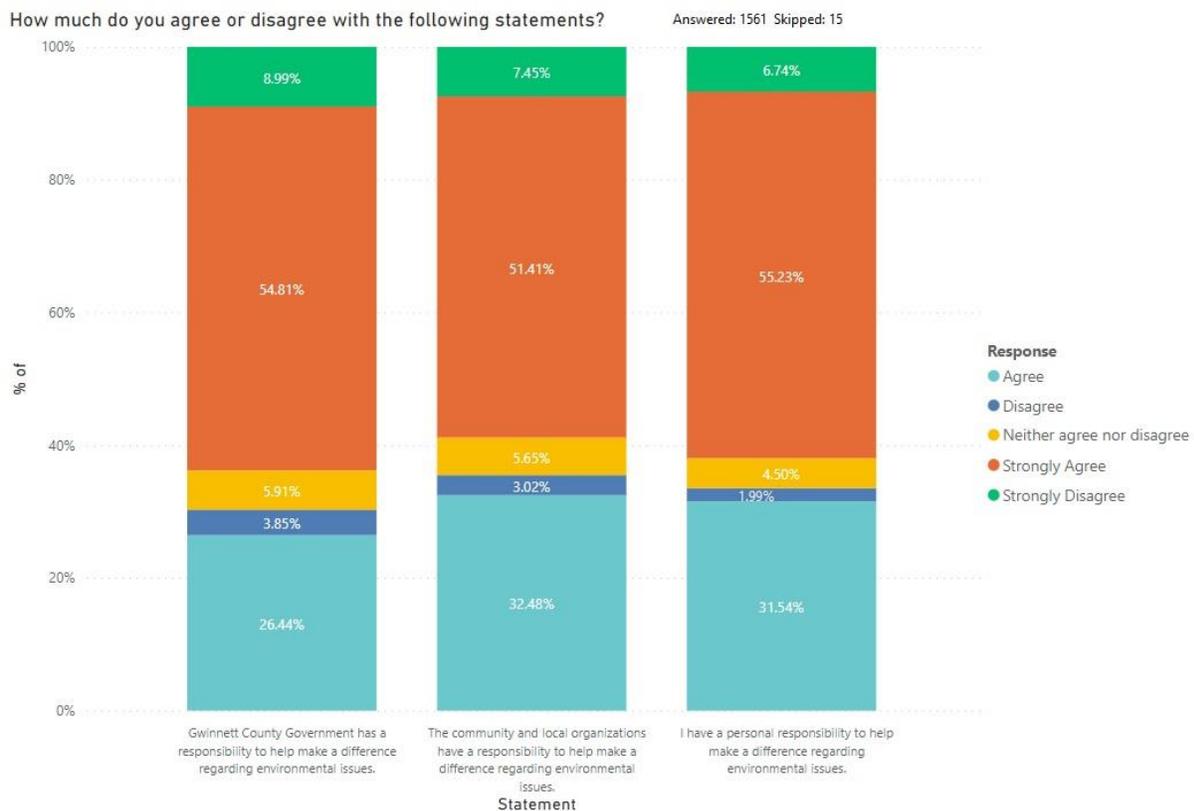
PUBLIC SUSTAINABILITY SURVEY: SUMMARY & KEY FINDINGS

As the first sustainability-focused comprehensive public opinion survey in Gwinnett County, the Gwinnett Environmental Sustainability Survey provided insight on a range of environmental sustainability topics of interest to the public, the County government, and the GCSC. The survey was open to the public between May 9 and July 11, 2022, and more than 1,500 responses were received. A [dashboard with full survey results](#) may be viewed online. Herein, a synopsis and analysis of the key findings is presented.

Broader Context

The majority (more than 60%) of respondents believe that we face dire environmental challenges that are a threat to global well-being, but are optimistic that these problems can be solved by greatly increasing current efforts and making radical changes to existing practices. Roughly one in five respondents acknowledge serious challenges but believe current actions are adequate to address them. The survey results suggest that people believe that there is shared responsibility when it comes to confronting environmental and sustainability challenges. More than 75% of the respondents have some level of agreement that Gwinnett County government, local communities, and individuals, respectively, must collaboratively address these issues (Figure 1).

Figure 1:



Individual Perspective and Actions

Having established the context for sustainability concern, the survey explored personal perspectives and actions in greater detail. Not surprisingly, the Gwinnett County sustainability-related program that respondents have engaged most with, by far, is our curbside recycling program (more than 75%). Over half (approximately 55%) are familiar with Gwinnett County Transit but are not interested in using it. Roughly 40% of respondents have used the Gwinnett Trails System. Programs least familiar to respondents include Harvest Gwinnett Community Gardens and water conservation classes. Other initiatives with room for growth and greater exposure include glass recycling drop-offs, recycling events, and household hazard waste collection events. This feedback indicates an opportunity for broader marketing and communication of these important initiatives.

Similar information can be inferred from a question about the pro-environmental actions respondents have taken in the past year. Most people have recycled an item or turned off lights when not in use, but over 70% have not taken a class or workshop about environmental sustainability. There were some indications that respondents sometimes or always intentionally drive less, leveraging public transit, carpooling, walking, or biking instead, but it was not a particularly strong signal in the statistics.

It is clear from the analysis that respondents may exhibit a limited perspective or understanding of the breadth of sustainability activities. Additionally, the data suggests that people are supportive of environmental or sustainability initiatives but are more likely to participate if an initiative or behavior change is convenient to their lifestyle. It was encouraging to see that about half of the respondents are, at a minimum, open to the possibility of purchasing an electric vehicle (EV) and that over 80% of them are also willing to make some personal changes to tackle environmental challenges.

Respondent Demographics

Demographically, it appears that there is some skewness to the distribution of respondents. The “average” respondent is a white female, over 50 years of age, and without children living at home. The typical respondent also possessed a college degree and an income above the median value for the County. Most respondents speak English at home and were born in North America. Nine out of ten respondents live in a single-family home, which largely leaves out residents of townhomes, apartments, extended stay hotels, and manufactured/mobile homes.

Gwinnett County is one of the most diverse counties in the nation, but this survey under-sampled men, younger people, a broader range of income levels, and non-white racial groups. For example, Black/African American, Hispanic/Latin American, and Asian/Asian American respondents combined were less than 20%, while their actual representation in the County is much higher. Why do these discrepancies matter? Many of the responses, while encouraging, may not authentically or fully represent the average County

stakeholder's perspective and needs. For example, an affluent respondent living in a single-family home in Buford may have very different perspectives on transportation, EVs, or energy-efficiency than a young, diverse couple living in multi-unit housing in Norcross. Future surveys and analyses must mitigate this clear sample bias and envision strategies to reach these groups. Standard distribution methodologies and "business as usual" practices are not adequate. Environmental challenges often disproportionately impact communities of color, the poor, youth, and the elderly, according to scholarly studies. Input from these constituents in future surveys is vital.

THE PUBLIC'S PRIORITIES ON SUSTAINABILITY

In one question of the public opinion survey, respondents were asked to share an idea or ideas to enhance environmental sustainability in Gwinnett County. Nine hundred and thirty-six free-response ideas and comments were received, and further analysis reveals that these comments clustered around common themes.

To conduct a thorough analysis of this important feedback, the GCSC analyzed the comments both by hand and by machine learning using [topic modeling](#), an automated technique that analyzes the most frequently used terms. Both analyses demonstrated that the top issues of concern for Gwinnett County residents and stakeholders on sustainability are the following, in rank order:

- 1. Expanding recycling access and outreach.**
The need to improve recycling education, restore convenient (ideally curbside) access to glass recycling, and expand access to hard-to-recycle and hazardous material recycling were topics mentioned the most frequently—at least 300 times.
- 2. Curtailing overdevelopment and the loss of trees and greenspace.**
Anger at perceived overdevelopment and loss of trees and greenspace was expressed more than 200 times. The public is concerned about deforestation, habitat loss, and degradation of Gwinnett's scenic beauty as a result of extensive new construction and wants to see better utilization of existing infrastructure.
- 3. Increasing green transportation options to reduce traffic and emissions.**
Receiving more than 160 mentions, more sustainable ways of getting around town are highly desirable. Stakeholders want less congestion, more effective public transportation, and better electric vehicle, bike, and pedestrian infrastructure.
- 4. Enhancing public outreach on sustainability.**
Many ideas and comments (approximately 150) referred to a need for greater community engagement on sustainability issues—from enhancing education on pro-environmental behavior to making information more transparent and accessible to increasing enforcement penalties for problematic behavior such as littering, dumping, or unlawful outdoor burning. Stakeholders would like to see the County engaging Gwinnett's cities and business community on sustainability.

Please refer to the [Appendix](#) of this report for full detail on the GCSC's comment analysis and stakeholders' priorities and concerns.

As previously discussed, this survey and the comments received were not a fully representative sample of the diversity of Gwinnett County's population and stakeholders. In addition, a sustainability office within the County government is needed to fully assess the feasibility of stakeholders' requests and communicate those decisions to the public.

GCSC'S RECOMMENDATIONS TO THE BOARD OF COMMISSIONERS

The GCSC's primary recommendation, which was formally submitted to the Board of Commissioners and County Administrator's Office on August 18, is to create a new Director of Environmental Sustainability position in the County Administrator's Office to lead Gwinnett County's progress on important sustainability matters going forward.

As the second-largest and most diverse county in the state of Georgia, Gwinnett County has a remarkable opportunity to be a leader on environmental issues among local governments in the South. Through a commitment to the Gwinnett Standard, the County has already achieved a high regional honor for sustainability: The Atlanta Regional Commission's (ARC) Green Communities Platinum Certification. But we can't stop there. With environmental crises accelerating by the day, citizens' concerns mounting (as evidenced by the public opinion survey), and the reality that environmental sustainability is ultimately a matter of quality of life and social justice for our diverse public, it is time to invest more. A Director of Environmental Sustainability is responsible for managing, coordinating, facilitating, and advising on the planning, development, implementation, monitoring, and improvement of County policies and programs pertaining to sustainability. Importantly, a leader in this role networks staff, ideas, and resources across departments and throughout the community, as well as responds with agility to emerging opportunities, such as those in the Inflation Reduction Act, to achieve equitable outcomes supported by a long-term sustainability plan.

There is precedent both in the metro Atlanta region and among counties of our size nationally for leadership and staff dedicated to sustainability. Our closest neighbor, Fulton County, has a Sustainability Division managed by an Energy & Sustainability Manager who is charged with overseeing and executing the county's robust [Sustainability and Resilience Plan](#). Similarly, Athens-Clarke County has had a [Sustainability Officer](#) in place since 2017, and that leader is supported by one staff member. The City of Atlanta has a [Mayor's Office of Resilience](#), with a Chief Sustainability Officer supported by a team of almost 10 people. A county of comparable size to ours outside of Georgia—Fairfax County, Virginia—has an [Office of Environmental and Energy Coordination](#) that leads the cross-organizational development and implementation of the County's environmental, energy and climate policies and programs. This sustainability office within a county of 1.2 million residents has 16 staff positions and represents a model for Gwinnett County to strive to emulate in the long term.

The GCSC considers the hiring of a Director of Environmental Sustainability and any support staff urgent and fundamental to ensuring the success of environmental sustainability plans, programs, and initiatives in Gwinnett County Government.

Additional Recommendations for Consideration

Organized according to the public's prioritization, the GCSC advances the following additional recommendations for consideration. A full-time Director of Sustainability would be best positioned to help manage these and other important sustainability priorities.

Recycling & Waste Reduction

- **GCSC Recommendation: Invest in improving recycling education.**
Contamination, the presence of non-recyclable material, remains rampant in Gwinnett's curbside recycling stream and threatens the long-term affordability and viability of our County's residential recycling system. A historical lack of a meaningful and well-funded recycling education program has directly contributed to resident confusion and high contamination in Gwinnett's recycling stream, resulting in rising program costs and a recycling rate of 14%—a dismal figure well below the national average (32%). Gwinnett County needs to allocate more dedicated funding for education to prompt residents to participate in recycling, encourage them to upgrade their recycling bins to free carts to capture more material, and provide regular reminders about which materials do—and do not—belong in curbside recycling. In addition, the County should communicate transparently about the issue of recycling contamination with residents, inviting them to the table to be part of the solution instead of part of the problem.
- **GCSC Recommendation: Establish staffed recycling drop-off centers.**
In a county of more than 400 square miles, we currently have one recycling drop-off center that is open to the public, the Snellville Recycling Center that is generously run by the City. This leaves far too many recyclable materials at risk of entering local landfills, including all metal, paper, plastic, and cardboard from multifamily complexes, the vast majority of which do not offer recycling. Staffed drop-off facilities, emulating the layout of the Snellville Recycling Center and the model of the Centers for Hard to Recycle Materials (CHaRM) in [Atlanta](#) and [Athens](#), could help meet resident demand for convenient, year-round access to recycling options for household items, hard-to-recycle materials, and hazardous waste. They would also mitigate the need for responsible residents to drive 60-80 miles round trip to a CHaRM or wait for one of the County's biannual hazardous waste events.
- **GCSC Recommendation: Restore convenient access to glass recycling.**
Many survey respondents specifically expressed a desire for the return of curbside glass recycling. If resuming curbside glass recycling is not feasible, the public should receive open communication and regular education about why it isn't, and glass recycling drop-offs should continue to be added to provide ultra-convenient access to this amenity in all regions of the County. This could easily be combined with an initiative to introduce comprehensive staffed recycling drop-off centers.

- GCSC Recommendation: Take action to reduce single-use plastic.**
 In a move that would signal Gwinnett’s progressive commitment to sustainability and help tackle a significant concern in our community—[litter](#)—the County can and should take action to tackle single-use plastic, a local and global waste crisis. Bans or fees on the most harmful single-use plastic items, such as plastic bags, can significantly discourage their use and recover funds for community cleanup. Neighboring communities [Fulton County](#) and the [City of Atlanta](#) have established an admirable precedent for government leadership, ending the sale and use of plastic bags, straws, and Styrofoam in government buildings.

Overdevelopment & Loss of Trees and Greenspace

- GCSC Recommendation: Evaluate and pursue relevant opportunities to mitigate tree and habitat loss as a result of overdevelopment.**
 In addition to being a top citizen concern, Trees & Greenspace as a category is tied for having the most ARC measures that remain unmet by Gwinnett County. The County should prioritize the preservation of trees and greenspace in its sustainability plan. It should also make a concerted effort to study the feasibility of implementing ARC measures related to Trees & Greenspace, including Measure 27: “Meet at least one of the following benchmarks for greenspace: (1) have 20 acres per 1,000 residents, (2) have at least 8 percent of total land protected for greenspace, or (3) all residents live within ½ mile walking distance to a park.”

Green Transportation

- GCSC Recommendation: Assess County carbon emissions using the new Drawdown Georgia Greenhouse Gas (GHG) Emissions Tracker and align with Drawdown Georgia solutions strategies.**
 The new [Drawdown Georgia GHG Emissions Tracker](#) should be leveraged to better assess and understand the County’s greenhouse gas emissions related to transportation and other activities. The GCSC also recommends aligning County sustainability strategies, as applicable, with Drawdown Georgia’s list of 20 high-impact, cost-competitive, and market-ready climate solutions that have been identified to dramatically reduce our state’s greenhouse gas emissions.
- GCSC Recommendation: Prioritize the development of bike- and pedestrian-friendly corridors and increase access to electric vehicle charging infrastructure.**
 To reduce traffic congestion and carbon emissions in Gwinnett County, and to improve wellness and quality of life, the GCSC sees high value in prioritizing the addition of more bike- and pedestrian-friendly corridors connecting residences with desirable destinations, including workplaces, schools, grocery stores, libraries, and places of worship. With electric vehicles set to bring transformative change to the automotive industry and our community, anticipating future changes by expanding electric vehicle charging infrastructure would also be advisable.

Public Outreach

- **GCSC Recommendation: Launch a business-focused sustainability survey.**
The initial survey was targeted primarily at people who live, work, or go to school in Gwinnett County. With a business or industry perspective, sustainability takes on different narratives and goals. The GCSC proposes a phase 2 survey aimed at the business community with a modest (<\$500) budget for marketing and distribution.
- **GCSC Recommendation: Add a GCPS student seat to the GCSC.**
To promote broad and diverse public engagement and help garner fresh ideas, the GCSC recommends establishing a sixth seat on its Commission which would be allocated to a high school student from Gwinnett County Public Schools (GCPS).

APPENDIX

Public Opinion Comment Analysis

To ensure the most thorough review and consideration possible of public ideas and comments on sustainability received in the survey, GCSC members analyzed the 936 responses received both by hand and using machine learning. Details on these analysis methods and their conclusions are provided below.

Analysis Method #1: By Hand

The GCSC read each comment and carefully noted the themes and topics covered. Some individual responses included an idea, comment, or complaint centered on just one topic, while others covered ten or more. This method of analysis resulted in the following data:

Topic	Number of Mentions	Sample Comment(s)
<i>Recycling</i>	303	<i>"I see a lot of 'wishcycling', where people dump whatever they think is recyclable in the recycling bins. We need to make it VERY clear - if it's not cardboard, plastic bottles 1 & 2, or aluminum cans, don't put it in the bins. It's contaminating the recycling efforts. Making recycling glass easier. Making composting available to residents to reduce trash and food waste, at least turning food back into compost."</i> <i>"...easy access to a drop off location similar to CHaRM in Atlanta that diverts more waste from landfills...curbside compost collection services..."</i>
<i>Overdevelopment/Greenspace</i>	216	<i>"The degree of watershed destruction and deforestation is degrading our region significantly ecologically and for human quality of life. The non-stop building cannot be sustained through our current infrastructure and so many projects are greenlit without any expectations on the contractors to contribute to improving the</i>

		<i>infrastructure they are going to profit from degrading."</i>
<i>Transportation</i>	167	<i>"Please invest in public transit and alternative ways of transit (bike/walking paths). Not only will that positively affect the environment, it will also reduce traffic and gridlock. Gwinnett is notorious for sprawl and using zoning to make places of interest more accessible instead of more separated will encourage people to reduce their car trips - an overwhelmingly positive choice."</i>
<i>Community Outreach</i>	150	<i>"Education. Educating residents on the importance of sustainability. Provide data to show changes in GC; whether good or bad. Offer public events that are advertised more. Make the tasks like recycling less of a hassle or at least perceived to be less."</i>
<i>Walkability/Bikability</i>	77	<i>"Add more bike/walking paths (and then promote them and encourage use) and work toward other ways of reducing the amount of cars on the roads."</i>
<i>Litter</i>	70	<i>"Get back to hitting people in the pocket for littering and illegal dumping."</i>
<i>Renewable Energy</i>	61	<i>"Provide renewable energy to ALL public buildings and promote and incentivize alternative energy resources."</i>
<i>Business Engagement</i>	52	<i>"Participate more with local businesses and their efforts [to] improve our environment. This builds an even greater bond with our community and ensures we act as a team to protect our environment."</i>
<i>Gardens/Agriculture</i>	51	<i>"Stop use of petrochemical-based herbicides on lawns in parks and public</i>

		<p>areas. Encourage all new housing developers, particularly those who build the denser variety, (apartment and townhome complexes) to set apart community garden space for residents. Or a 'village green' area. Establish 'food forests' throughout communities, by hiring agricultural experts to train residents. Provide for the residents to be stakeholders in these ventures to prevent overdependence on government. This will ensure that even low-income communities have access to clean, organic food and a healthier environment."</p>
Water Conservation	49	<p>"Too much water waste. I see subdivisions with automatic sprinklers going during rainstorms. I've seen landscapers and homeowners blowing debris down storm drains."</p>
Carbon Reduction	47	<p>"Can the county help underwrite Georgia Power & Walton EMC solar grids so that they diminish coal sourced power? Better educate citizens regarding their carbon footprint and provide options to reduce or become carbon neutral."</p>
Criticism	38	<p>"You send out this survey, yet Gwinnett County continues to approve dozens of developments of townhomes and other unneeded strip malls where acres of forested land are clear cut, roads expanded, and cover everything else with asphalt. And then you send out a survey asking how WE can help global warming? Are you f-ing kidding? Look at your own departments first!"</p>
Single-Use Plastic	37	<p>"Local awareness programs to promote and encourage reduction and elimination of use of plastics and other non-recyclable materials."</p>

<i>Native Plants</i>	35	<p><i>"...Community classes on how to be a responsible and eco-conscious homeowner (dangers of pesticides and herbicides and safer alternatives, how to identify and get rid of invasive plant species, how to create a hospitable environment for pollinators."</i></p> <p><i>"Outlaw the planting of non-native plants on county property and demand developers plant less grass and more native trees, shrubs, and perennials."</i></p>
<i>Sustainable Buildings</i>	33	<i>"Reduce waste energy such as turn off lightings or A/C where is not in used. promote green energy or green building when possible."</i>
<i>Social Issues</i>	20	<i>"Be good stewards but we have far greater issues to handle like safety, homelessness and child and senior welfare."</i>
<i>Telework</i>	16	<i>"Gwinnett County should let their employees work from home to eliminate unnecessary emissions, traffic incidents and overall pollution."</i>
<i>Office of Sustainability</i>	6	<i>"Establish a Gwinnett sustainability office and director to develop, coordinate, budget and implement integrated sustainability vision and strategies."</i>

In addition to the topics listed above, 56 mentions were not applicable or miscellaneous.

The full manual comment analysis file may be accessed [online](#) for reference.

Analysis Method #2: Machine Learning

Alternative data analysis was performed using open-source data science tools. Whenever possible in County government, open-source data science tools should be leveraged as a best practice because they allow data to be accessible and reproducible, promoting transparency and accountability. Furthermore, people can improve upon, understand, and identify errors that may occur.

Topic modeling is an unsupervised machine learning technique which detects text patterns and clusters them together to create topics. The analysis was done in Python using Bertopic (Bidirectional Encoder Representations from Transformers, or [BERT](#)) which is the model used for the topic modeling analysis. BERT is a language model created by Google and used in its search engine.

Topic modeling of the comments yielded 50 topics with a minimum count of three for the number of topic mentions. Aligning with the analysis by hand, the following were the four top topics determined by machine learning:

1. The most discussed topics were related to recycling/waste reduction, such as bringing back curbside glass recycling and making recycling easier. Some of the phrases most commonly mentioned were *glass recycling*, *recycling*, *curbside glass recycling*, and *make recycling easier*.
2. The second most discussed topic was stopping development that threatens trees and greenspace. The most commonly used phrases were *cutting trees*, *cutting trees to build*, and *trees building subdivisions*.
3. The third most discussed topic was improving public transit to make it more accessible and to help alleviate traffic. The most commonly used phrases were *Marta*, *expand Marta*, and *transit*.
4. The fourth most discussed topic was about programs, policies and organizations that can help enhance sustainability public outreach and understanding in Gwinnett. The most commonly used phrases were *environmental sustainability*, *classes*, *schools*, and *education public*. Respondents mentioned having sustainability classes, creating sustainability programs at Gwinnett County schools and other youth organizations, and creating more awareness.

Many of the topics can be grouped together as they relate to one another. For instance, the topic of recycling includes topics related to making recycling easier, curbside recycling, educational programs, and issues concerning waste management/litter.

Further detail on the GCSC's BERT analysis may be accessed [online](#) for reference.

Figure 2: A graphical representation of the survey comments and the topics generated. Word Score represents semantic similarity for the topic. The higher the score, the more associated the word is with that topic.

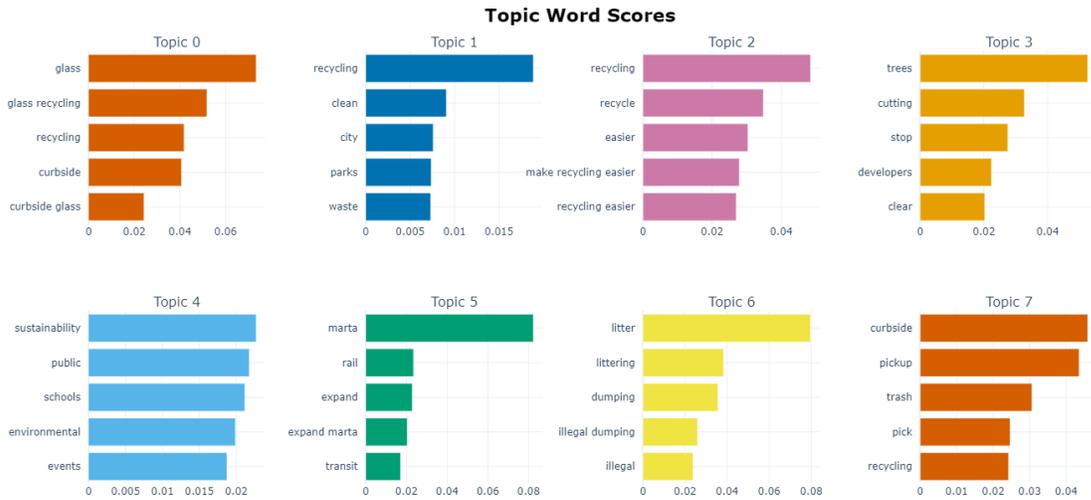


Figure 3: The intertopic distance map is a visualization of the topics in a two-dimensional space to show how closely related each topic is to one another.

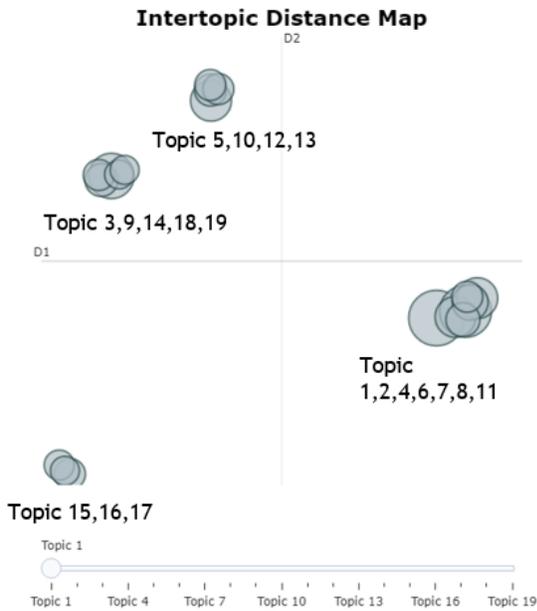


Figure 4: A word cloud of the survey comments, with the most common terms in the largest text.



Recycling and Waste Reduction Update

October 2022



Today

- County's Solid Waste Program
- Gwinnett Clean & Beautiful
- Battery Recycling
- Discussion
- Homework

Brief History

2010

Program established
per settlement and
release agreement

2020

Second amendment
clarified and
added terms

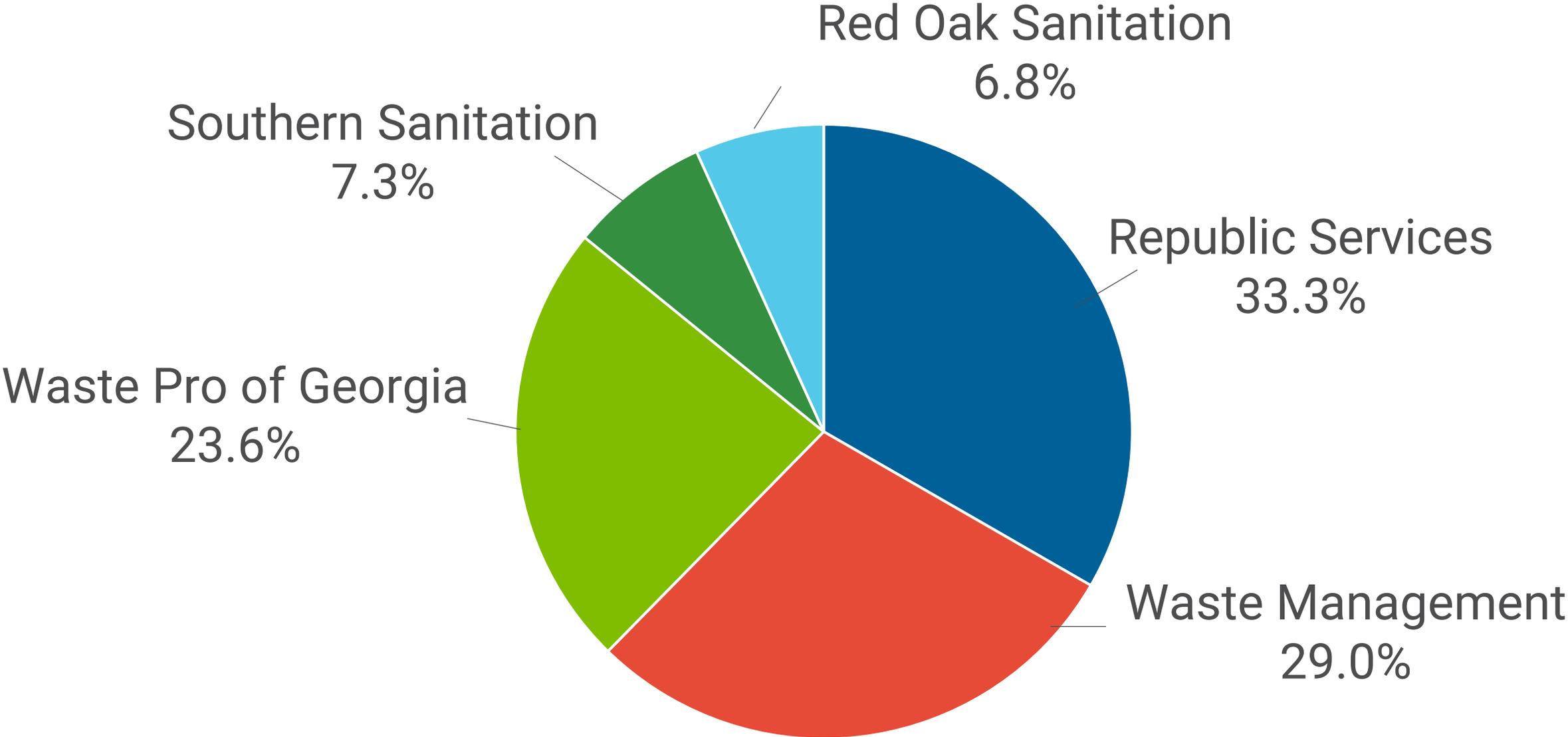
2018

First amendment
extended contract
and established rates

2022

Third amendment
modified rates
and performance
requirements

Total Service Units by Hauler



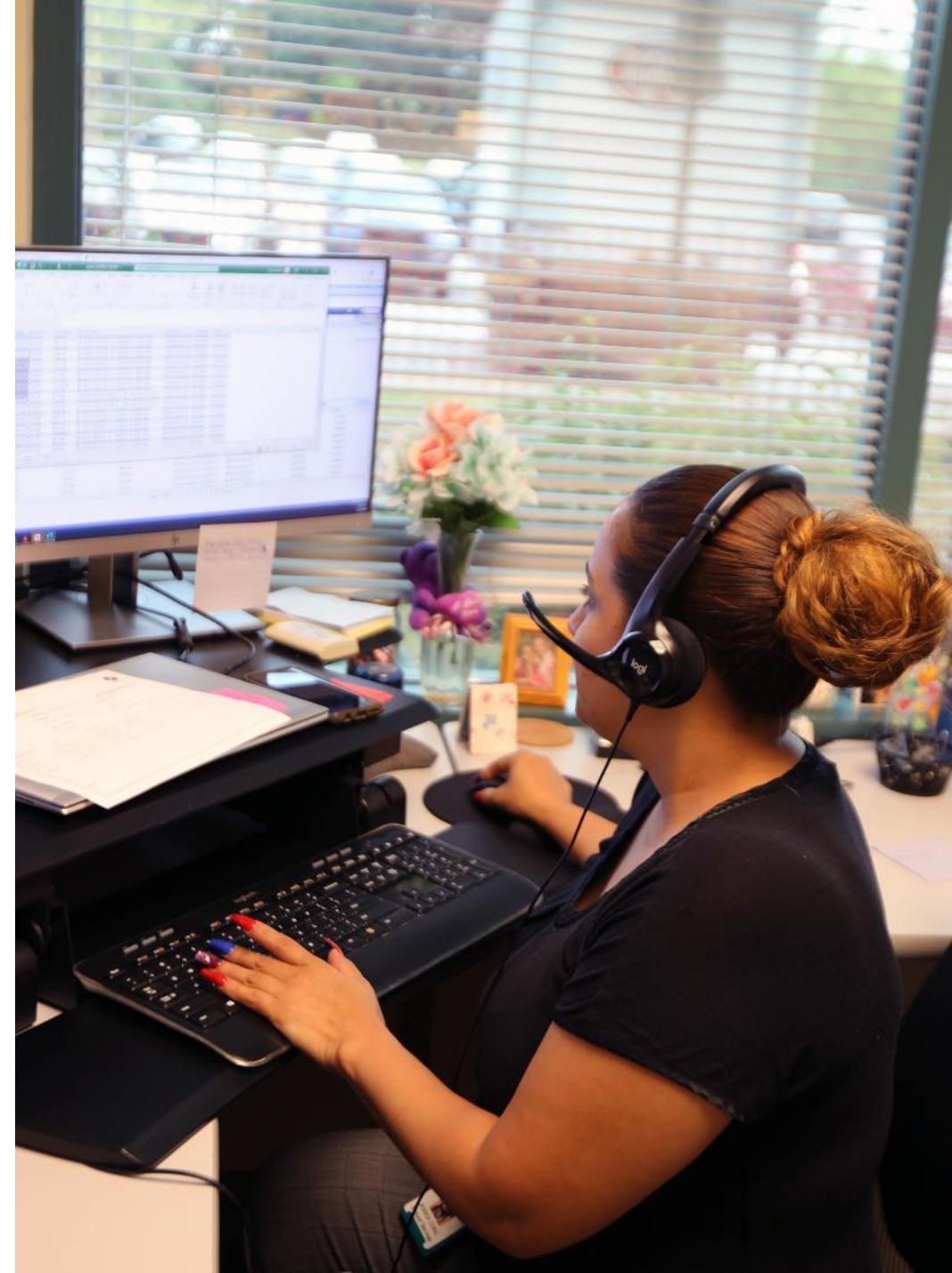
Services

- Required Services
 - Trash
 - Recycling
 - Bulky Goods
 - White Goods
- Optional Service
 - Yard Waste (directly with hauler)



Customer Call Center

- Add new customers
- Answer questions
- Enter/respond to customer requests
- Work with haulers

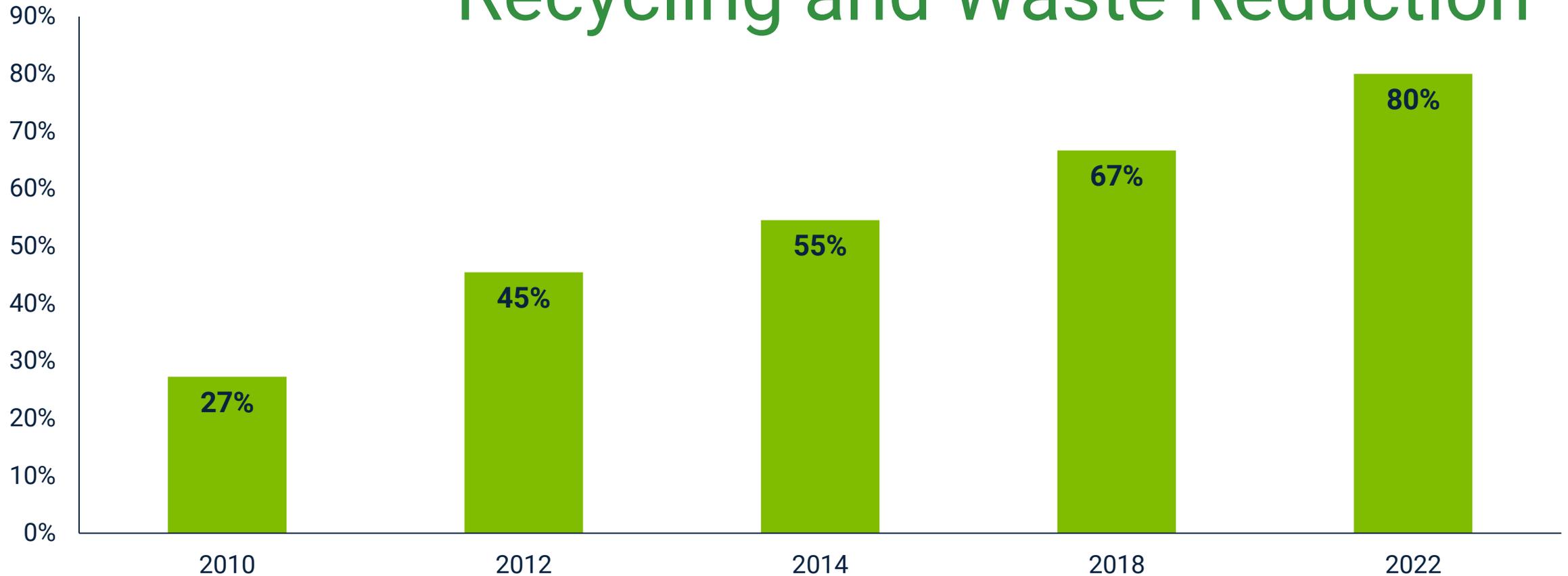




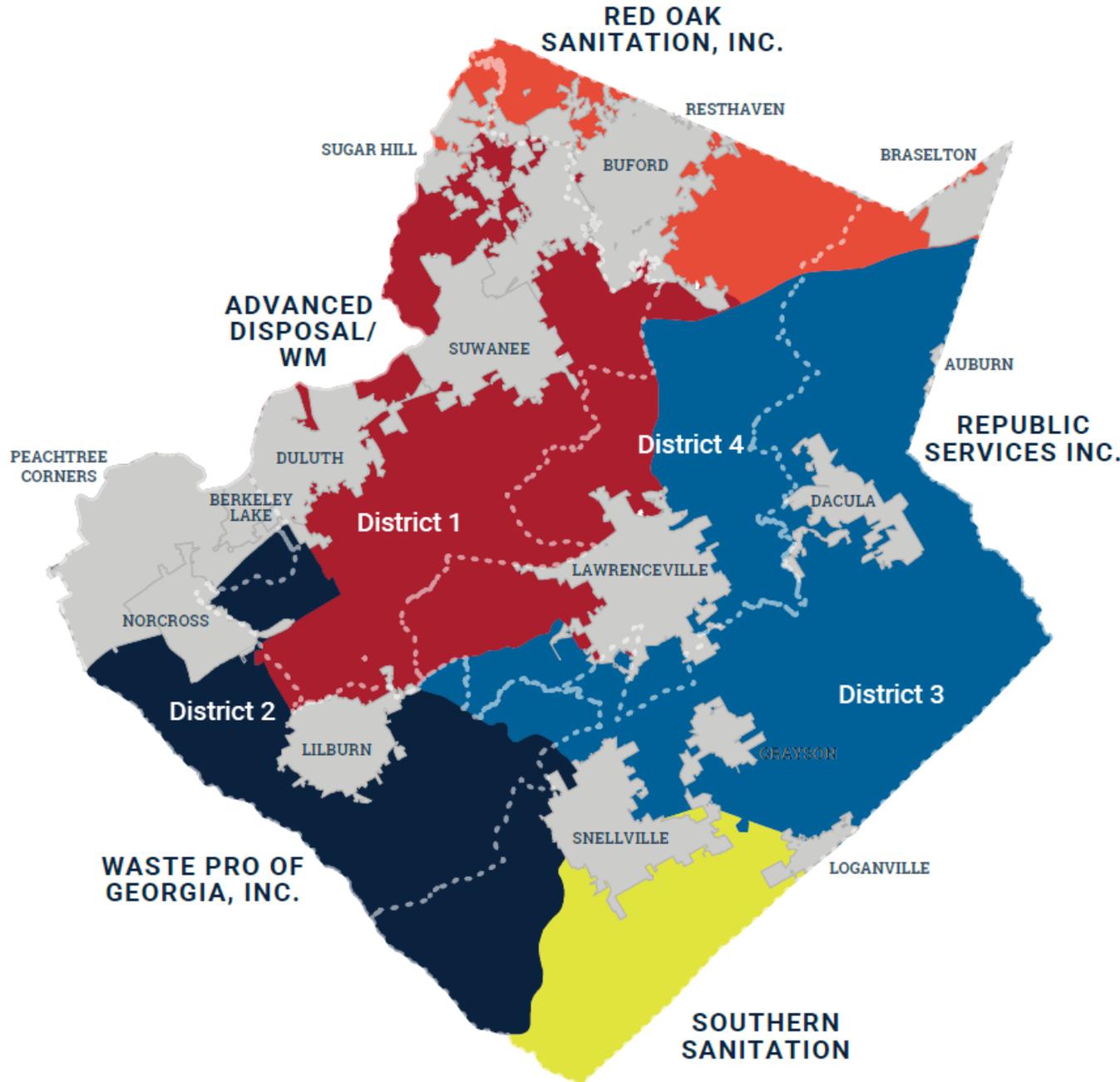
Outreach Activities

- Sponsor recycling events with Gwinnett Clean & Beautiful
 - Earth Day
 - America Recycles Day
- Conduct educational activities
 - Schools, summer camps, civic organizations
 - Festivals

Atlanta Regional Commission Green Communities Application Recycling and Waste Reduction



Service Areas



○ Commission Districts

● Cities

Haulers

● Waste Management

● Republic Services

● Red Oak Sanitation

● Southern Sanitation

● Waste Pro of Georgia

Recycling Education

Thank you for recycling these:

Please do not bag recyclables. Recyclables must be clean and dry.



Paper and Cardboard
(mixed paper,
flattened cardboard)



Aluminum and Steel
(empty and dry)



Plastic Bottles, Jars, and Jugs
(no tubs, plastics #1 and #2 only,
empty and dry)

Items not accepted curbside:



**Plastic Bags
or Wrap**
(return to retail)



**Hoses, Cords,
Styrofoam,
or Wires**



**Batteries or
Electronics**



Food and Liquids



Glass

GCSolidWaste.com
770.822.7771



Funded in part by
THE RECYCLING
PARTNERSHIP



Recycling Education

Digital Advertising Platform	Advertising Type	Number of Impressions
Outdoor Digital Billboards	Five digital billboards on surface streets in designated zip codes	3,923,903
Pandora Digital Radio	30-second radio spots with accompanying banners	1,775,932**
Facebook and Instagram	Static ads	534,477
Google Search Ads	Search ads	35,096*
*As of 10.13.2021 **As of 10.15.2021	TOTAL IMPRESSIONS	4,912,018

Activities

Support Services

- Solid Waste Plan
- Solid Waste Ordinance
- Residential Hauler Agreement
- Curbside Residential Recycling Program

Gwinnett Clean & Beautiful

- Great American Clean Up
- Stop Handbills
- Bring One for the Chipper

Support Services/ Clean & Beautiful

- Earth Day
- America Recycles Day
- Glass Recycling Program

Activities

Water
Resources

- Fats, Oils, Grease: reduction of biosolids in landfills

Water
Resources/
Clean &
Beautiful

- Adopt-A-Stream
- Household Hazardous Waste Disposal events

Transportation/
Clean &
Beautiful

- Take Pride in Gwinnett
- Adopt-A-Road

**CONNECTING PEOPLE
AND RESOURCES FOR A**
Sustainable
GWINNETT



**VOLUNTEER
ACTION**



**CLEANUP
EVENTS**



**ENVIRONMENTAL
ADVOCACY**



**COMMUNITY
EDUCATION**



PARTNERSHIPS



**RECYCLING
EVENTS**



**ADOPT-A-ROAD/
ADOPT-A-STREAM**



**SCHOOL
PROGRAMS**

Gwinnett Clean & Beautiful

County Programs and Partnerships



Nonprofit Programs and Partnerships



Battery Recycling

- Overview
- Differences from other types of recycling
- Options
- Current activities



Discussion