



# sustainability update



## Introduction

The Metropolitan Atlanta Rapid Transit Authority (MARTA) provides public transportation services through bus, heavy rail, light rail, and paratransit service to the Atlanta Metropolitan Region. MARTA offers services to the 2 million residents living within its service territory, with roughly 500,000 daily riders.<sup>1</sup> Sustainability is inherent to our agency’s mission by providing public transit options and removing cars and associated congestion from regional roadways. Our recent Carbon Footprint Update for 2019 found that MARTA’s provision of alternative transportation to the region’s population prevented 1,721,536 metric tons (MT) of carbon dioxide equivalent (CO<sub>2</sub>e) from being released into the atmosphere as a result of mobility mode shift and the advancement of changing land use.

500,000+  
riders daily

Similar to many organizations, and transit agencies in particular, the novel coronavirus (COVID-19) pandemic has created significant and unique challenges for MARTA in 2020. Given that public transit is essential to Atlanta, MARTA has taken every precaution with COVID-19 through daily cleaning and sanitizing of the entire fleet, and by requiring all employees, contractors, and visitors to wear masks while on MARTA property or in a MARTA vehicle.

We have also publicly reported the virus’s impacts on all personnel and ridership from March 2020 onwards to inform the public and track all potential exposures across the Authority. The overall number of bus routes have been reduced, while service to the most critical routes in the City has been maintained or (in some cases) increased. Given the reduced commuting of many transit riders, we have seen ridership decrease for 2020 and anticipate this to continue into 2021. COVID-19 and MARTA’s response is discussed later in this report’s Community section.

2 million  
residents in  
MARTA service territory



In early 2021, MARTA was informed by the American Public Transit Association (APTA) that we have been **approved for the Gold status** in their Sustainability Commitment program.

Even amidst the ongoing challenges of the pandemic, MARTA continues to implement its important sustainability initiatives. We released our inaugural [Sustainability Report in 2018](#) and an [Update Report in 2019](#). The 2020 Update Report reviews the most recent progress MARTA has made towards realizing our Triple Bottom Line — achieving cost-savings, having a net-positive impact on the environment, and improving the communities in which we operate, work, and live.

Following the organizational format of previous sustainability reports, our 2020 updates are categorized into four main sections:



We conclude with our [Vision Forward](#) and next steps for MARTA's sustainability program.



### Continually Improving

A key pillar of MARTA's Environmental Management Policy and overall operations is the focus on continual improvement. This is reflected in MARTA's annual sustainability metrics. All metrics are normalized by vehicle revenue miles (VRM) to account for our increasing service area through expansion efforts, and to make our values more easily comparable to those of other transit agencies.<sup>2</sup> Initiatives enacted to achieve these reductions are further described throughout this report.

	2012	CHANGE	2019
<b>EMISSIONS</b> (lbs. CO <sub>2</sub> e per VRM)	9.57	-27%	7.01
<b>WATER</b> (gallons per VRM)	0.710	-40%	0.423
<b>WASTE</b> (lbs. per VRM)	0.098	-13%	0.086
<b>ENERGY<sup>3</sup></b> (kBtu per VRM)	27.73	-14%	23.77

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# buildings

building a more sustainable MARTA





## Efficiency Upgrades

The MARTA ESCO project has completed installation of energy-efficient lighting at all MARTA rail stations, maintenance facilities, and office buildings. Additional energy-efficient mechanical upgrades are currently being installed at MARTA rail stations, office, and maintenance facilities. All mechanical work will be completed by end of third quarter 2021.



Reynoldstown Bridge: Before and After

## Station Rehabilitation Project

The rehabilitation of stations will address many components whose failure over the years has caused larger issues for long-term station maintenance. Water intrusion through failed joint caulking has caused structural problems with freeze/thaw cycles in paved areas such as major bus driveways. As well, it has caused mold growth in many hard-to-reach areas. By addressing these issues, MARTA is providing healthier stations to its patrons and workers as well as alleviating significant day-to-day maintenance issues.

# environment

conserving resources and being good stewards



Norths Springs Station  
car charging stations



## Electric Vehicle (EV) Charging Stations

In 2019, MARTA began installing EV charging stations in our rail station parking garages and lots. This offering encourages and facilitates the use of electric vehicles for transit riders. As of June 2020, Phase I of the initial rollout was complete with 60 ports installed across the Authority. Six rail stations (H.E. Holmes, Kensington, Doraville, Lindbergh, College Park, North Springs, and Candler Park) now have 6 to 10 active spaces available for charging. The rollout also included the Windward Park and Ride with 6 charging spaces and the Laredo Bus Maintenance Facility with 4 charging spaces. As of October 2020, there had been 1,272 charging sessions. This usage is estimated to be the equivalent of 5.9 metric tons (MT) of avoided greenhouse gas (GHG) emissions, or the same benefit as planting 151 trees and letting them grow for ten years.

All installation work and maintenance is currently performed by Georgia Power and their contractors. The EV charging stations are currently free for transit riders, and a payment process is under review by MARTA leadership.

## Environmental Management System

MARTA's Environmental Management System, or EMS, is a set of policies, processes, and procedures for assessing, controlling, and reducing the environmental impact of its activities, products and services. MARTA's EMS Program has expanded to encompass eight facilities since the 2019 update:

- Armour Yard Rail Maintenance Facility
- Laredo Bus Maintenance Facility
- Headquarters Print Shop
- Brady Mobility Facility
- South Yard Rail Maintenance Facility
- Streetcar Vehicle Maintenance Facility
- Integrated Operations Center
- Perry Bus Maintenance Facility
- Avondale RCM/MOW Facility

The program is currently expanding to the remaining two MARTA facilities — Browns Mill and Hamilton Bus Maintenance Facilities. Once implementation is complete and these locations are externally certified to International Organization for Standardization (ISO) 14001:2015, MARTA EMS will officially be in place at all of MARTA's major facilities and offices.

In 2019 and 2020, the EMS program fully implemented the EMS Liaison program. This initiative requires a designated individual from every MARTA facility and office to represent the EMS program, stay up to date on all relevant environmental regulations, and regularly communicate with MARTA's EMS Program manager. EMS has also recently rolled out a new Material Safety Data Sheet (MSDS) online system, enabling MARTA employees to easily access important information on all chemicals within MARTA's inventory. This change creates a more efficient and less wasteful process compared to previously used traditional paper copies.

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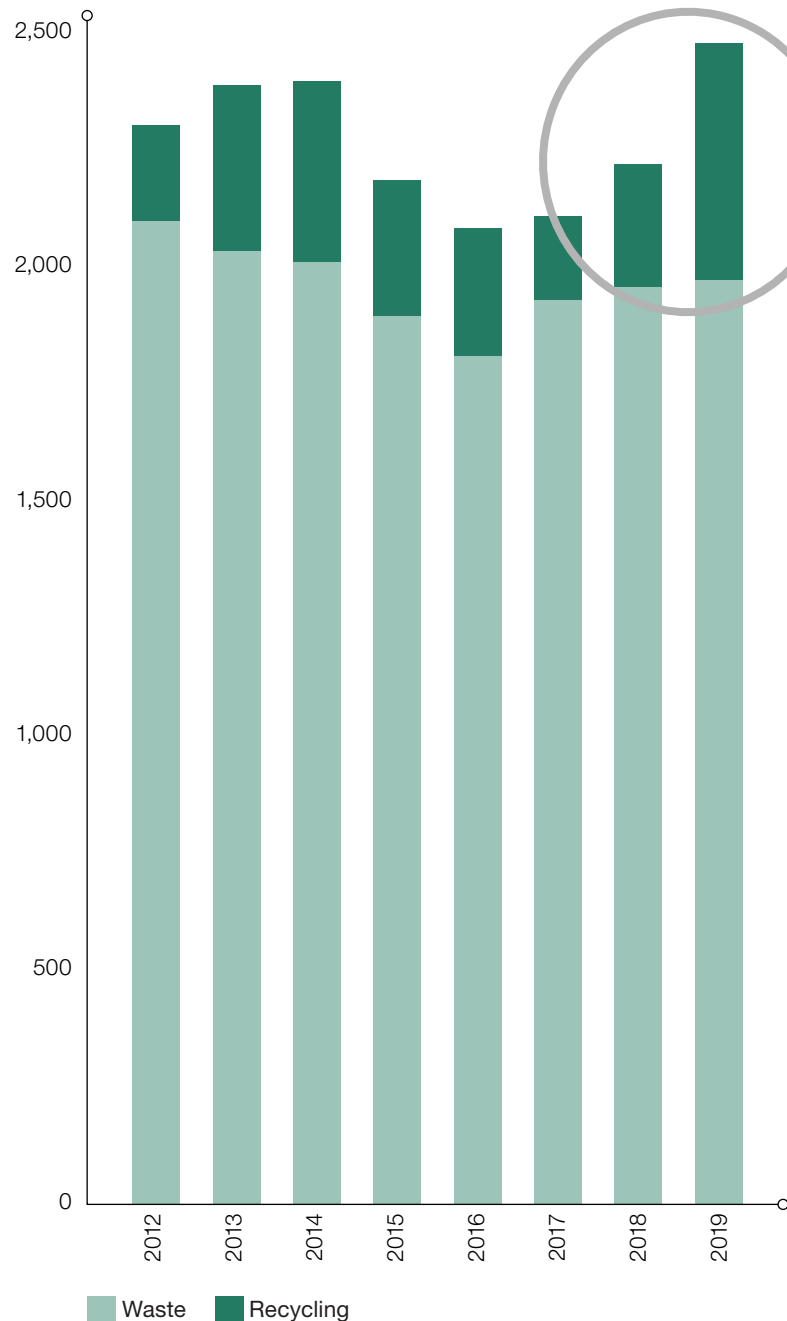
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## Total Annual Tonnage for Waste and Recycled Materials Produced by MARTA



244+ ton  
recycling increase, 2018-2019

### Waste Reduction and Recycling

From 2018 to 2019, MARTA saw an increase in recycling tonnage of over 244 tons. The majority of the additional recyclables were scrap metal byproducts from the various projects MARTA is implementing across the Authority. This resulted in an improved diversion rate of 20 percent in 2019 versus 12 percent in 2018. MARTA continues efforts to increase our recycling while also decreasing the total amount of waste produced.

Currently, rail riders inside a rail station have only one place for recycling: recycling bins are available next to the vending machines outside of MARTA's rail station gates. These are provided by our vending machine vendor only at stations with vending machines. With MARTA's station rehabilitation program, MARTA is planning to roll out a rail station recycling program with recycling bins provided and administered by MARTA in all stations — both inside and outside the station gates. This will provide additional opportunities for riders to recycle and participate in MARTA's sustainability initiative. The recyclables accumulated at the stations will further contribute to MARTA's overall recycling tonnage.



**3,500,000**  
 gallons saved by bus  
 wash water reuse  
 systems each year



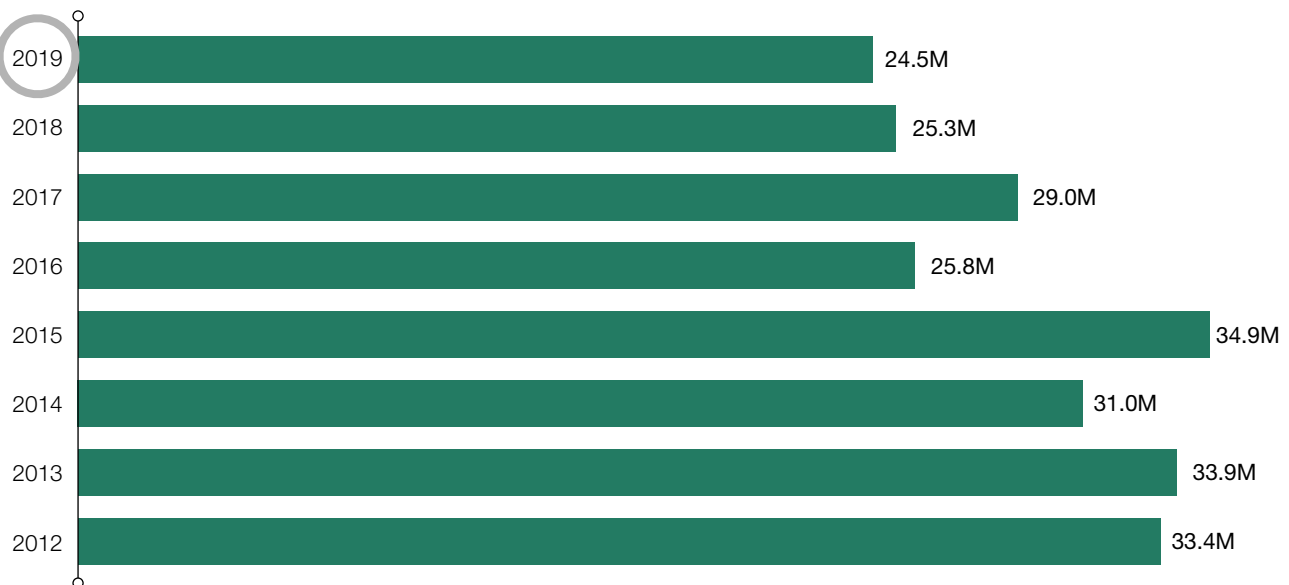
## Water Usage

Water use across MARTA decreased in 2019 by 3 percent to the lowest annual usage on record since MARTA began recording data in 2012. It is likely that MARTA's retrofits in facilities to more efficient cooling and heating systems have already improved efficiencies and will continue to contribute to reduced water use. MARTA's bus wash water reuse systems continue to save MARTA an estimated 3,500,000 gallons of water each year that would otherwise be drawn from the region's potable water system.<sup>4</sup>



**Historical Water Usage at MARTA (Gallons)**

lowest annual  
 water usage  
 on record



# community

supporting and improving our surroundings





## COVID-19 Community Support and Testing

MARTA's drivers and employees are essential to keeping MARTA running and the greater Atlanta region connected. Our people have been working tirelessly throughout the COVID-19 pandemic, and we are grateful for their continued service. To keep everyone safe while continuing to offer service to our riders, MARTA has increased daily cleaning and sanitizing of the entire fleet and requires all employees, contractors, and visitors to wear masks while on MARTA property or in a MARTA vehicle. As well, we have installed barriers on buses to ensure that drivers and riders can maintain a safe distance.

Beginning in March, MARTA suspended fares. By allowing people to ride the system for free, MARTA limited the interactions between operators and riders for the increased safety of both, and enabled continued MARTA use by people with financial difficulties exacerbated by the pandemic.

Some other ways MARTA has helped the community during the pandemic include:

MAY

MARTA hosted a free COVID-19 testing center at our Hamilton E. Holmes MARTA station in partnership with the Family Health Centers of Georgia. The parking lot was set up for free testing for drive-through and walk-up appointments. Every person tested received a free surgical mask to take home.

JULY

MARTA deployed staff and volunteers to begin handing out up to two million disposable masks to riders at its rail stations and bus bays.

AUGUST

MARTA awarded a contract to install air purification systems at all air-conditioned facilities across the Authority. The devices will be installed this fall on 209 air conditioner units at 18 MARTA facilities including office buildings, police precincts, bus garages, and railyard towers. This is part of MARTA's Return to Normal process to protect employees and those visiting MARTA facilities.

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# racial equality and social justice

## Addressing Homelessness in Atlanta

MARTA is partnering with HOPE Atlanta — a non-profit organization that offers housing, social services, substance abuse counseling and employment — for a year-long pilot program to address homelessness in Atlanta. This program will partner case managers from HOPE Atlanta with MARTA Field Protective Specialists to actively engage with unsheltered individuals on MARTA properties to help them pursue stable and supporting housing solutions. The partnership will work with the Gateway Center, Partners for Home, and the Regional Commission on Homelessness (RCOH), funded by the United Way of Greater Atlanta, as well as with MARTA's jurisdictional partners in the City of Atlanta, and in Fulton, DeKalb and Clayton counties. HOPE Atlanta has been given office space in the Five Points station to manage aspects of this program.

## Commitment to Fight Systemic Racism

As part of our ongoing efforts to be an active and engaged participant in the movements for racial equality and social justice within the Atlanta region, on June 10, 2020 MARTA released a [full commitment letter](#) to fight systemic racism. Written and signed by MARTA's CEO, Jeffrey Parker, the letter states that the transit agency:

- 1 Condemns injustice
- 2 Reflects and respects the diversity of our region
- 3 Advances equity in its capital expansion, hiring, community engagement, and most of all its policing.

The letter commits to having the MARTA Police Department adopt and use community-oriented policing approaches and demonstrate transparency. As well, all officers are to receive annual training in cultural competency and implicit bias.

MARTA has also started an ongoing series of facilitated conversations with employees and stakeholders on these topics and created a specific email address for employees, customers, and stakeholders to submit comments, opinions, and ideas: [BLM@itsmarta.com](mailto:BLM@itsmarta.com).



HOPE Atlanta Partnership. Photo credit: HOPE Atlanta





## Suicide Prevention

Death by suicide is a growing issue in the United States and in the state of Georgia. According to the Centers for Disease Control and Prevention (CDC), death by suicide in Georgia has increased from 12 per 100,000 in 2012 to 14.1 in 2019.<sup>5</sup> This signals a need for increased mental health and suicide prevention awareness in our state. MARTA recognizes the important role we serve in community outreach and efforts in Atlanta, so we have recently rolled out a suicide prevention poster campaign at our rail stations. These posters include phone numbers and several resources for riders to contact in the event of a crisis.



Edgewood / Candler Park Station Transit-Oriented Development

## Transit-Oriented Development

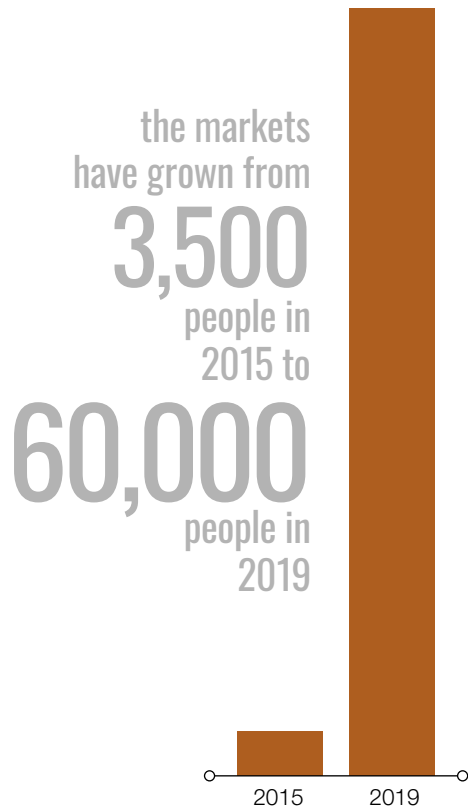
MARTA is spearheading two Transit-Oriented Development (TOD) projects surrounding Kensington Station. MARTA is partnering with the Housing Authority of DeKalb County for the development of 170 affordable apartments for seniors to be in close proximity to the MARTA station. The complex will also feature a business center, workout facilities, a library, and a cafe. The second project is a mixed-use community that will surround the Kensington station with

a series of new residential buildings — some proposed to be up to 12 stories — as well as green space and parks. The plans are still under development, as rezoning is required to move forward.<sup>6</sup> Construction is also underway for the TODs at both the King Memorial and Edgewood/Candler Park Stations.

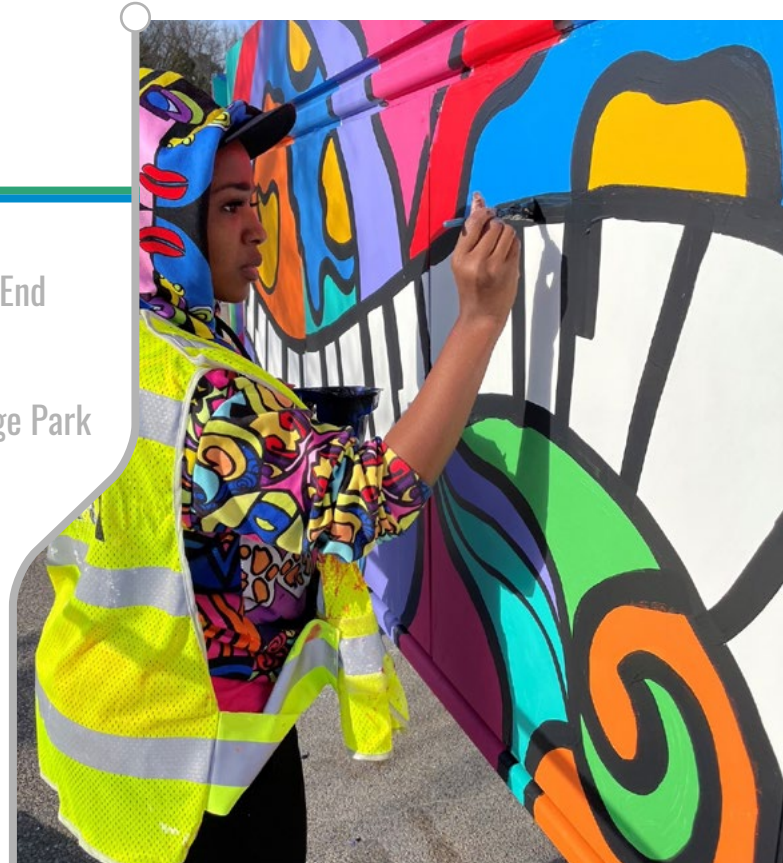
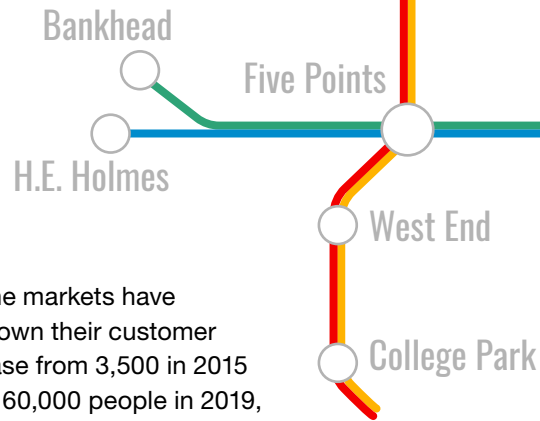


## Fresh MARTA Market

The Fresh MARTA Market now takes place at five MARTA stations (Bankhead, West End, Five Points, College Park, and H.E. Holmes) in an effort to provide fresh food options to Atlanta neighborhoods that otherwise have limited access. This initiative focuses primarily on the southern and western parts of the city, as well as in locations with higher volumes of commuter traffic.



The markets have grown their customer base from 3,500 in 2015 to 60,000 people in 2019, reaching a large number of people who previously did not go to Atlanta's farmers markets. Small farmers have been able to sell their produce wholesale to MARTA without having to sell it individually or through co-ops. In 2018, the markets sold 46,000 pounds of produce, with most of it coming from local farmers.<sup>7</sup> Fortunately, the Fresh MARTA Markets were able to open in 2020 with several COVID-19 safety protocols in place. This included social distancing, limiting customer interactions with the market produce, all market staff wearing masks and gloves, and sanitizing all surfaces regularly.



Local artist Melissa Mitchell works on a new mural at Indian Creek Station

## Public Art Program

One percent of MARTA's annual budget is allocated to enhance the ridership experience through visual and performance art through MARTA's Artbound program.<sup>8</sup> By integrating art into our stations, we bring energy and excitement to passengers along their journey. This program has continued to expand across our network, with new installations soon to be completed at the Airport Station, Brady Maintenance Facility, and the Dunwoody Station. As of October 2020, 28 of the 35 stations have at least one piece of artwork. Since 2017, Artbound has engaged with artists of color (63%) and women artists (42%).

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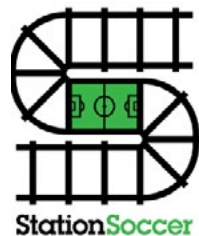
## Fighting Human Trafficking

MARTA partners with several organizations and efforts in the fight against human trafficking. These include Georgia Cares and the “Truth in Trafficking” ad campaign by the National Center for Civil and Human Rights International Human Trafficking Institute. MARTA also participated in training programs around Super Bowl LII to educate our frontline staff on how to identify victims and aid in their recovery. Human trafficking hotline posters have been placed in bathrooms at all MARTA facilities. Further, MARTA has plans to partner with OUTFRONT Media to display anti-human trafficking public service announcements throughout rail stations.

In January 2020, MARTA’s CEO, Jeffrey Parker, signed the Transportation Leaders Against Human Trafficking (TLAHT) pledge to combat human trafficking in the transportation sector. With this pledge, MARTA elevates our existing efforts to the forefront with ongoing awareness training for all employees, and we will continue to work closely with our partners.

## StationSoccer

Soccer in the Streets, a not-for-profit based in Atlanta, launched StationSoccer on MARTA property at Five Points Station in 2016 to provide free soccer programs for underserved youth.<sup>9</sup> Since then, the program has expanded to three more rail stations: West End, East Point, and Lindbergh Center. It will expand to six more stations in the future, including H.E. Holmes, Kensington, Civic Center, Doraville, Bankhead, and East Lake. Across the network of fields, there are regularly-scheduled youth and adult programs, pickup games, and soccer clubs.



StationSoccer events at East Point Station (top) and West End Station (right)





# climate

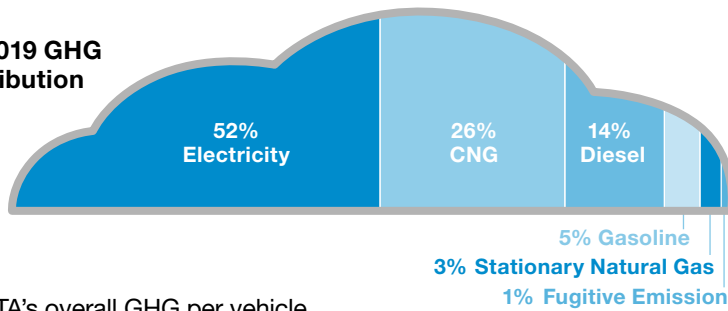
mitigating and adapting to climate change



# Greenhouse Gas Emissions

Since MARTA's initial Carbon Footprint in 2008, MARTA has completed updates for calendar years (CYs) 2012, 2014, 2015, 2016, 2017, 2018, and 2019. The CY 2020 update will be completed later in 2021. The GHG emissions assessed during the Carbon Footprints encompass all of MARTA's emissions from revenue and non-revenue mobile sources, as well as stationary emissions from facilities and offices.

## CY 2019 GHG Distribution

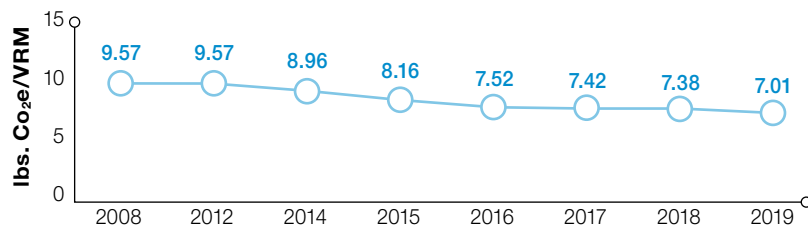


MARTA's overall GHG per vehicle revenue mile (VRM) decreased from 2018 to 2019 by 5.0 percent and from 2008 to 2019 by 26.8 percent. The decrease in emissions implies that MARTA's transit services have become less carbon intensive over that period of time.

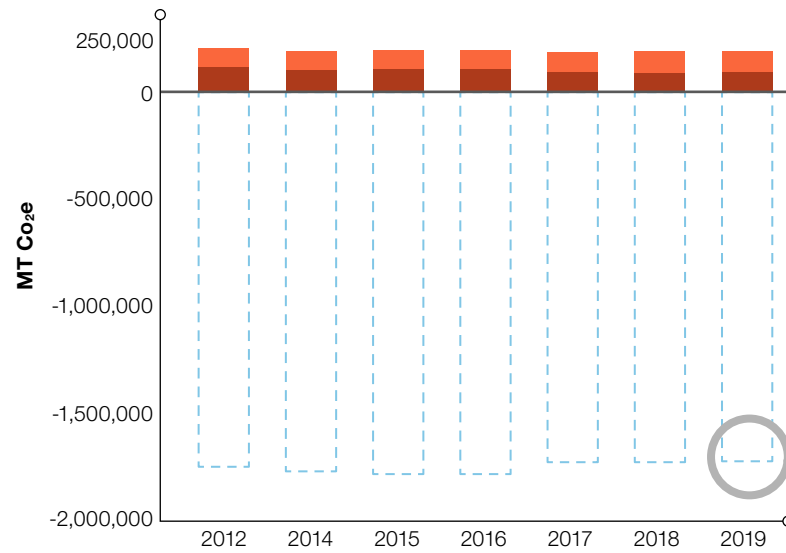
The decrease in CO<sub>2</sub>e emissions from 2012 to 2019 may be attributed to several factors. There has been a decrease in older diesel buses and an increase in new Compressed Natural Gas

(CNG) buses. There has also been an overall decrease in stationary gas combustion. And, there have been changes to the Environmental Protection Agency's (EPA) electricity emissions factors for the sub-region<sup>10</sup> due to the region's shift from coal to cleaner energy options (i.e., natural gas). As electricity represents over half of MARTA's emissions, changes to these emissions factors have a large impact on our total MT CO<sub>2</sub>e.

## Change in CO<sub>2</sub>e Emissions Intensity 2008-2019



## Overview of Emissions and Emissions Displaced by MARTA 2012-2019



- Scope 1 (Direct) Emissions
- Scope 2 (Indirect) Emissions
- Total Displaced Emissions

MARTA is proud of the significant role we play in reducing GHG emissions across the Atlanta Metropolitan Region by providing alternative transportation options that help to decrease the number of cars on roads. MARTA's bus and rail services reduced regional GHG emissions by keeping 1,721,536 MT of CO<sub>2</sub>e out of the atmosphere in 2019. This is equal to keeping 371,927 cars off the road for a year, or the equivalent of annual electricity use from 291,466 homes.

removing **1,721,536** MT CO<sub>2</sub>e is equal to keeping


**371k+ cars**

off the road for a year, or the annual electricity use from

**291k+ homes**





  
**14,000**  
 boardings  
 per week on **new**  
 battery-electric  
 buses

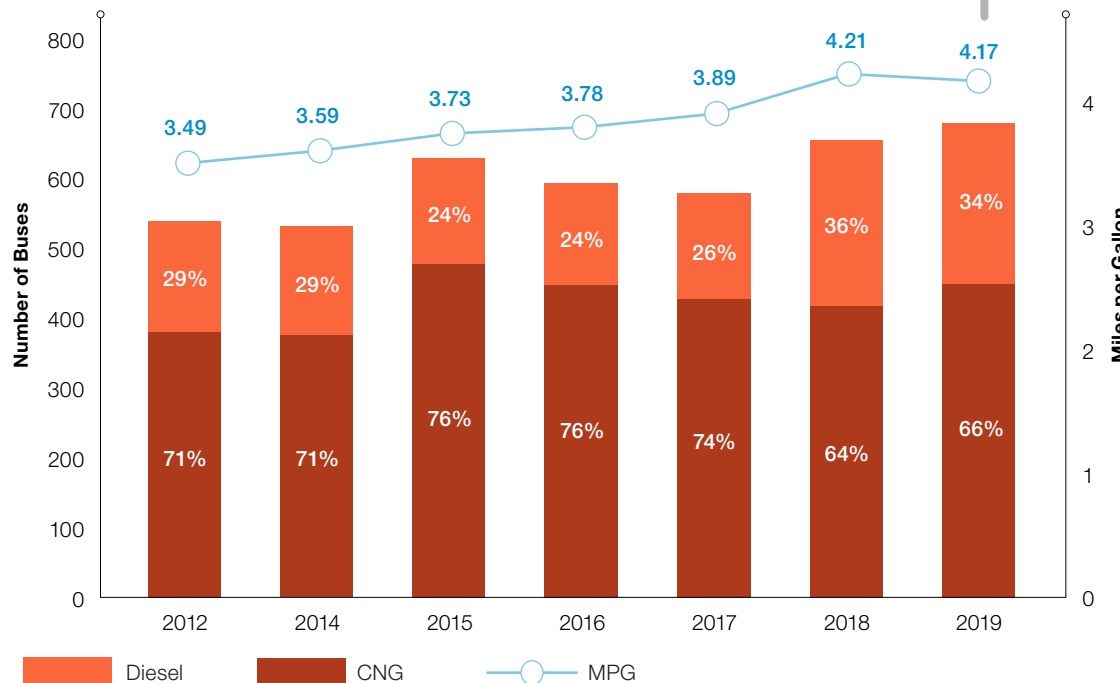
### GHG Emissions Reduction Initiatives

As announced last year, MARTA is in the process of procuring six new battery-electric buses to replace six aging diesel buses in its fleet and installing the infrastructure equipment to support their operation and maintenance. The Xcelsior battery-electric bus from New Flyer combines the benefits of zero emissions and lower operating and maintenance costs for the Authority. The buses

feature direct-drive technology; their lack of a transmission reduces both maintenance and propulsion complexity. The battery-electric buses are designed for heavy-duty transit service. They are supported by plug-in type depot chargers at the Laredo Bus Maintenance Facility, as well as on-route/opportunity fast-conductive charging at the East Lake MARTA Rail Station. Additionally, a depot-type charger

will be located at MARTA's Browns Mill Bus Maintenance Facility to support the buses during heavy maintenance and repair events. These buses will serve MARTA's Route 2 (Ponce de Leon/East Lake) and Route 102 (Ponce de Leon/Little Five Points), fully electrifying these routes. Upon complete implementation, there will be approximately 14,000 boardings per week on MARTA's new battery-electric buses.

MARTA Bus Fleet Ratio and Fuel Efficiency, 2012–2019



**19%** increase in overall  
 fuel efficiency  
 of bus fleet since 2012

MARTA has also been replacing its old diesel bus fleet with new CNG and more fuel-efficient diesel buses. Burning CNG fuel instead of diesel fuel produces significantly fewer pollutants. Our bus fleet's overall fuel efficiency has increased by 19 percent from 2012 to 2019. Additionally, MARTA is currently undergoing a major bus maintenance overhaul. The Chief Engineer for Bus is leading the effort to update all bus engines to improve efficiency. As a result, we expect to see reduced fuel usage and a decrease in GHG emissions in the coming years.

# vision forward

what's next!

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MORE MARTA, the expansion program funded by the half-penny sales tax passed by Atlanta voters in 2016, continues to move forward and contribute to positive outcomes across the Authority.<sup>11</sup> MARTA solicited public feedback on the Campbellton Corridor Transit Project in May/June 2020. Project leaders are seeking to have the high-capacity transit project in the design/planning phase by 2025, which should increase accessibility and mobility to southwest Atlanta. Increasing MARTA's service area with more fuel-efficient transit options will improve MARTA's overall positive sustainability impact on the Atlanta Metropolitan Region.

MARTA's Environmental Management System will also continue to expand into additional maintenance facilities with the goal of being Authority-wide within a couple of years. The Browns Mill and Hamilton Bus Maintenance Facilities are the next locations slated to undergo the program initiation and eventually aim for ISO 14001:2015 certification.

Additionally, MARTA is also exploring the feasibility of other sustainability initiatives, including:

**Reduced idling for revenue and non-revenue vehicles**

**Implementing additional water efficiencies into landscaping practices throughout the Authority, including more native drought tolerant plantings and rain capturing**

**Developing a Climate Action Plan**

**Annual Sustainability Report Updates**

MARTA's commitment to being a sustainable transit agency is strong. And as demonstrated by the actions and initiatives detailed in this report, we continue to seek opportunities to improve our assets, operations, and community engagements towards having a positive impact across metrics. We will strive to further our contributions to the Atlanta Metropolitan Region through providing a transportation option that lowers regional GHG emissions, minimizes environmental impacts, and supports safe, equitable, and just communities.



# appendix

## Footnotes

- 1 Note that ridership has already seen a decline in 2020 due to the COVID-19 pandemic. This number represents average daily ridership before COVID-19.
- 2 Previous reports normalized by Passenger Miles Traveled (PMT), however MARTA has changed its normalization factor to reflect the ongoing service area expansion (MORE Marta).
- 3 Includes electricity, vehicle fuel, and natural gas
- 4 Average estimate taken from total water usage at Perry and Laredo (reuse bus washing facilities) vs. Hamilton (non-reuse bus washing facility) from CY2013 to CY2016
- 5 <http://www.americashealthrankings.org/explore/annual/measure/Suicide/state/GA>; CDC WONDER Online Database, Underlying Cause of Death, Multiple Cause of Death files
- 6 [Around Kensington MARTA station, development plans abound, decaturish.com](#)
- 7 [Why Atlantans Buy Their Produce on the Subway, politico.com](#)
- 8 [Station Art Collection, itsmarta.com](#)
- 9 [Station Soccer, itsmarta.com](#)
- 10 eGRID Region SRSO
- 11 [More MARTA Atlanta; MARTA Board Approves Sequencing off Historic Expansion Program, itsmarta.com](#)

## Acronyms

<b>APTA</b>	American Public Transit Association	<b>GHG</b>	Greenhouse gas
<b>CDC</b>	Centers for Disease Control and Prevention	<b>ISO</b>	International Organization for Standardization
<b>CEO</b>	Chief Executive Officer	<b>MARTA</b>	Metropolitan Atlanta Rapid Transit Authority
<b>CNG</b>	Compressed natural gas	<b>MOW</b>	Maintenance of way
<b>CO<sub>2</sub>e</b>	Carbon dioxide equivalent	<b>MT</b>	Metric tons
<b>COVID-19</b>	Novel coronavirus	<b>PMT</b>	Passenger miles traveled
<b>CY</b>	Calendar year	<b>RCM</b>	Railcar maintenance
<b>EMS</b>	Environmental Management System	<b>RCOH</b>	Regional Commission on Homelessness
<b>EPA</b>	Environmental Protection Agency	<b>TLAHT</b>	Transportation Leaders Against Human Trafficking
<b>ESCO</b>	Energy service company	<b>TOD</b>	Transit-Oriented Development
<b>EV</b>	Electric vehicle	<b>VRM</b>	Vehicle revenue miles



# Detailed Sustainability Data

YEAR	2008	2012	2013	2014	2015	2016	2017	2018	2019
<b>RECYCLING/WASTE</b>									
Scrap Metal Recycling (tons)		139	224	277	128	107	55	157	386
Single-Stream Recycling (tons)		48	56	45	108	92	37	52	53
Used Oil Recycling (gallons)		46,415	46,521	41,202	42,340	43,710	48,404	47,812	42,562
Electronic Waste Recycling (tons)		0	0.8	0.6	4.4	2	1	11	2
Paper Recycling (tons)		16	74	64	52	72	80	41	55
Cardboard Recycling (tons)									8
Lamps Recycling (tons)									2
Municipal Solid Waste (tons)		2,060	1,998	1,958	1,837	1,751	1,877	1,905	1,933
Wood waste (tons)		40	39	56	59	61	54	54	42
<b>Diversion Rate</b>		<b>9.1%</b>	<b>14.8%</b>	<b>16.1%</b>	<b>13.3%</b>	<b>13.1%</b>	<b>8.2%</b>	<b>11.8%</b>	<b>20.4%</b>
<b>Lbs. waste &amp; recycling / PMT</b>		<b>0.0066</b>	<b>0.0070</b>	<b>0.0070</b>	<b>0.0059</b>	<b>0.0056</b>	<b>0.0058</b>	<b>0.0063</b>	<b>0.0070</b>
<b>Lbs. waste &amp; recycling / VRM</b>		<b>0.0980</b>	<b>0.1010</b>	<b>0.1019</b>	<b>0.0840</b>	<b>0.0770</b>	<b>0.0756</b>	<b>0.0782</b>	<b>0.0856</b>
<b>ENERGY USAGE</b>									
Propulsion Electricity (kWh)		84,755,425	84,500,218	89,172,383	92,260,860	92,324,642	91,288,461	91,538,744	97,615,147
Stationary Electricity (kWh)		99,421,291	99,536,821	103,099,365	104,294,807	103,990,794	103,101,273	102,506,612	89,637,506
<b>Total Electricity Consumed (kWh)</b>		<b>184,176,716</b>	<b>184,037,039</b>	<b>192,271,748</b>	<b>196,555,667</b>	<b>196,315,436</b>	<b>194,389,734</b>	<b>194,045,356</b>	<b>187,252,653</b>
<b>kWh / PMT</b>		<b>0.263</b>	<b>0.270</b>	<b>0.280</b>	<b>0.266</b>	<b>0.264</b>	<b>0.267</b>	<b>0.275</b>	<b>0.266</b>
<b>kWh / VRM</b>		<b>3.92</b>	<b>3.89</b>	<b>4.08</b>	<b>3.77</b>	<b>3.63</b>	<b>3.48</b>	<b>3.42</b>	<b>3.23</b>
<b>Total Stationary Natural Gas Combustion (therms)</b>		<b>1,022,933</b>	<b>1,161,796</b>	<b>1,155,237</b>	<b>1,124,451</b>	<b>1,066,777</b>	<b>1,239,755</b>	<b>1,157,227</b>	<b>980,772</b>
<b>Therms / PMT</b>		<b>0.0015</b>	<b>0.0017</b>	<b>0.0017</b>	<b>0.0015</b>	<b>0.0014</b>	<b>0.0015</b>	<b>0.0015</b>	<b>0.0014</b>
<b>Therms / VRM</b>		<b>0.022</b>	<b>0.025</b>	<b>0.025</b>	<b>0.022</b>	<b>0.020</b>	<b>0.020</b>	<b>0.019</b>	<b>0.017</b>
<b>WATER USAGE</b>									
<b>Total Water Consumed (gallons)</b>		<b>33,384,685</b>	<b>33,940,595</b>	<b>31,037,073</b>	<b>34,900,740</b>	<b>25,840,667</b>	<b>28,964,573</b>	<b>25,253,976</b>	<b>24,535,358</b>
<b>Gallons / PMT</b>		<b>0.048</b>	<b>0.050</b>	<b>0.045</b>	<b>0.047</b>	<b>0.035</b>	<b>0.040</b>	<b>0.036</b>	<b>0.035</b>
<b>Gallons / VRM</b>		<b>0.710</b>	<b>0.717</b>	<b>0.659</b>	<b>0.670</b>	<b>0.477</b>	<b>0.519</b>	<b>0.445</b>	<b>0.423</b>
<b>MOBILE FUEL USAGE (REVENUE AND NON-REVENUE)</b>									
Diesel Fuel (gallons)	3,400,000	3,105,175		3,262,438	2,623,705	2,537,015	2,625,127	2,059,460	2,196,172
Compressed Natural Gas (DGE)	7,200,771	5,485,662		5,329,457	5,465,831	5,867,303	5,995,539	5,458,537	5,173,766
Unleaded Gasoline (gallons)	416,000	270,579		355,576	1,045,385	1,091,211	1,177,975	1,309,445	1,826,190
<b>Total Fuel Consumed (gallons)</b>	<b>11,016,771</b>	<b>8,861,416</b>		<b>8,947,471</b>	<b>9,134,921</b>	<b>9,495,529</b>	<b>9,798,641</b>	<b>8,827,442</b>	<b>9,196,128</b>
<b>Gallons / PMT</b>	<b>0.0136</b>	<b>0.0127</b>		<b>0.0131</b>	<b>0.0124</b>	<b>0.0128</b>	<b>0.0134</b>	<b>0.0125</b>	<b>0.0131</b>
<b>Gallons / VRM</b>	<b>0.199</b>	<b>0.189</b>		<b>0.190</b>	<b>0.175</b>	<b>0.175</b>	<b>0.176</b>	<b>0.156</b>	<b>0.159</b>

Light grey boxes represent year in which the corresponding data were not collected

- INTRO
- BUILDINGS
- ENVIRONMENT
- COMMUNITY
- CLIMATE
- VISION FORWARD
- APPENDIX**





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