



City of San Antonio
**Office of
Sustainability**
2022 ANNUAL REPORT

WHO?
cares!
SAN ANTONIO DOES.





CITY OF SAN ANTONIO

Office of Sustainability



BACK ROW, LEFT TO RIGHT: Harley Hubbard, Leslie Antunez, Chief Sustainability Officer Douglas Melnick, Deputy Chief Sustainability Officer Julia Murphy, Rafael Lozano, Murray Myers

FRONT ROW, LEFT TO RIGHT: Andra Nava-Garcia, Golda Obinzu, Alyson Haynes, Olga Montellano-Campos

NOT PICTURED: Rawley Saldana

A WORD FROM OUR CHIEF SUSTAINABILITY OFFICER

Douglas Melnick

As I begin my tenth year with the City of San Antonio, I feel it is important to reflect on what has been accomplished and what remains unfinished. We have moved from an organization and community that was not fully engaged in climate action to becoming a leader in the state and nation in mitigating and adapting to climate change. From the adoption of SA Climate Ready Plan in October 2019 to the

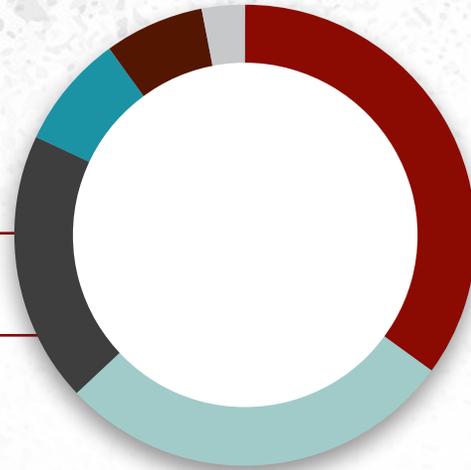
establishment of the Resilience, Energy Efficiency, and Sustainability (REES) Fund in September 2022, we have accomplished a lot. We began electrifying our fleet, installing EV chargers, established a comprehensive municipal employee climate training program, engaged youth and community-based organizations in the climate conversation, and adopted the latest energy codes, as well as EV

and Solar Ready requirements for new construction. We are not finished yet, and the work continues. The coming year will be filled with a robust agenda of transformative projects that prepare us for the future and enhance community, sustainability, and resilience in San Antonio. For a comprehensive look at our portfolio, visit sasustainability.com.

Greenhouse Gas Inventory Report

2021 Community-wide inventory results

Emissions AT A Glance

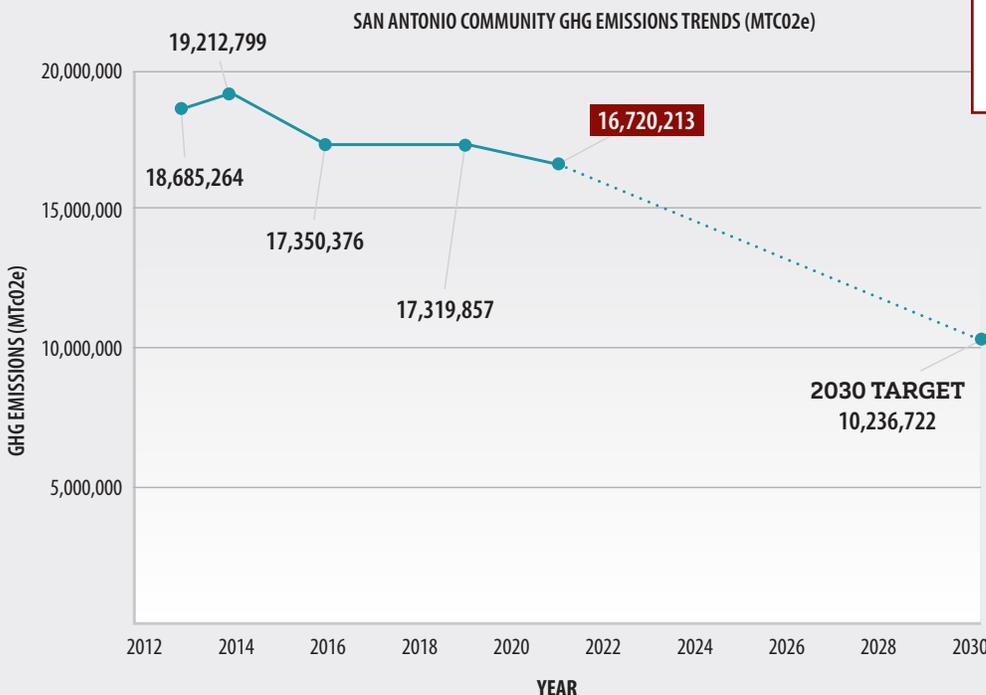


- 1** TRANSPORTATION **35%**
- 2** COMMERCIAL ENERGY **28%**
- 3** RESIDENTIAL ENERGY **19%**

- 35% Transportation & Mobile Sources
- 8% Process & Fugitive
- 28% Commercial Energy
- 7% Solid Waste
- 19% Residential Energy
- 2% Industrial Energy

* Water & wastewater is less than 1% total emissions

Change in emissions since 2013



2019-2021

Key Sector Trends

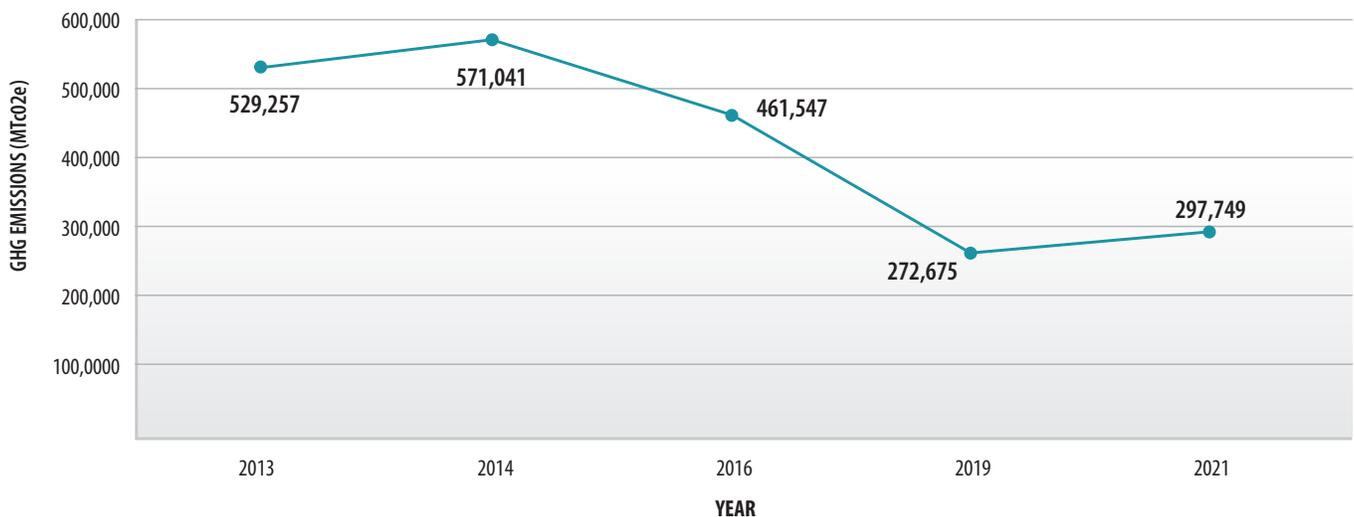
- TRANSPORTATION** ↘ **5.78%** DECREASE
- RESIDENTIAL ENERGY** ↗ **6.66%** INCREASE
- COMMERCIAL ENERGY** ↗ **6.45%** INCREASE

EMISSIONS TRENDS

- > Total community emissions have decreased by 13% from a high in 2014.
- > Total community emissions have decreased by 3.46% between 2019 and 2021



2021 Government Operations Inventory Results



- > Between 2013 and 2021, emissions peaked in 2014 with total emissions of 571,041 MT CO₂e and fell by 41% to 272,675 MT CO₂e in 2019.
- > Total government operations emissions increased by 8.42% between 2019 and 2021 from 272,675 MT CO₂e to 297,749 MT CO₂e.
- > While there was a 6.1% decrease in emissions from the municipal fleet, the primary driver of the increase was from the emissions generated by municipal buildings and facilities (+19% and the City-owned closed landfill +7.2%).

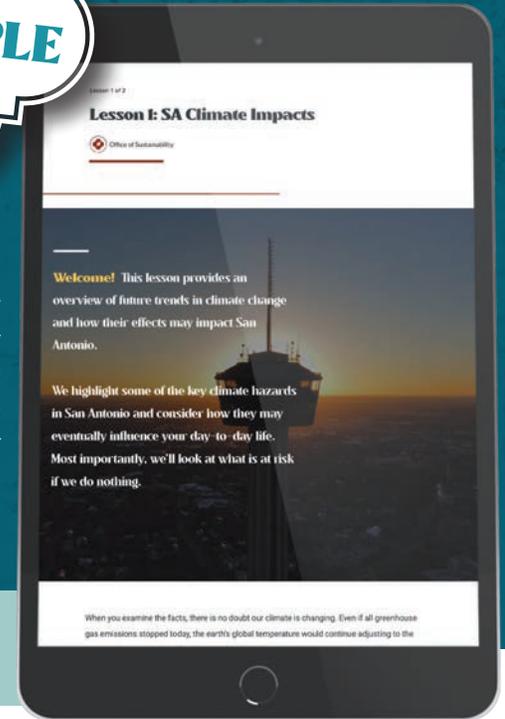
ADVANCEMENTS AND INNOVATION

Climate Action

City of San Antonio Employee Climate Training 2.0

The new and improved comprehensive climate training for City employees is a major component of the 'Educate and Empower' strategy in the SA Climate Ready Plan and a commitment to lead by example. Building on last year's training program, the Office of Sustainability launched an interactive

training series on Earth Day, April 22, 2022. The eight learning modules cover topics such as the SA Climate Ready plan, greenhouse gases, building energy solutions, alternative and clean transportation, and community initiatives.



In September 2022, the Climate Training modules became available to the public
To get started visit: sasustainability.com/climate-training

American Cities Climate Challenge celebrates conclusion after 2.5 years

The Office of Sustainability celebrated the conclusion of the American Cities Climate Challenge with 24 other participating cities in June. The Challenge was created to accelerate greenhouse gas emission reductions in the transportation and building energy sectors, but these efforts

became part of a "bigger story" of climate justice, equity, and the inclusion of frontline communities in the development of policy. San Antonio's achievements included dedicated funding for transit, bicycle facilities, and sidewalks; the establishment of Property Assessed Clean Energy (PACE) program to finance energy efficiency projects; the public-private partnership to provide EV charging at City locations at no-cost to the City; the establishment of community-wide climate engagement including the Mayor's Youth Engagement for Climate Initiatives, grassroots Community-Based Organizations funding, all City of San Antonio Staff Climate Training, and the Who Cares? and EVSA public information campaigns; robust stakeholder engagement around building energy benchmarking; and municipal advancements around fleet electrification, building energy management and considerations for renewable (solar) energy to power City buildings.



LEFT TO RIGHT:

John Bailey, Climate Advisor, NRDC; Douglas Melnick, Chief Sustainability Officer; Julia Murphy, Deputy Chief Sustainability Officer; and T. Adil Chowdhury, Climate Advisor, NRDC



ADVANCEMENTS AND INNOVATION

Solar Deployment

On August 31, 2022, the City of San Antonio released a Request for Proposals (RFP) seeking market-based solutions to deploy solar across up to 80 city-owned facilities. The City seeks to demonstrate local leadership by leveraging its own buildings and parking lots to install cost-effective clean energy projects throughout the city.

FULL RFP AND SUPPORTING DOCUMENTS:



tinyurl.com/SASolarRFP

ADVANCEMENTS AND INNOVATION

Transportation

Electric vehicles are clean, economical and quiet. In our community, gas-powered vehicles are the largest contributor to polluting greenhouse gas emissions. With more people moving to our region and driving on our roads, electric vehicles can contribute to a cleaner and more sustainable future.

As the market develops around electric vehicles in San Antonio, EVSA unifies the City's policy, planning and programming efforts around electric transportation.

CITY OF SAN ANTONIO FLEET UPGRADES

- > **19 electric fleet vehicles procured in 2021**
- > **23 fleet EV charging ports installed in 2021**
- > **35 Hybrid and 15 BEV light-duty vehicles procured in 2022**
- > **Projected 100 fleet EVs by 2025**



Animal Care Services Director Shannon Sims charging his City fleet vehicle at Walker Ranch Senior Center.



ADVANCEMENTS AND INNOVATION

Accelerate Faster, Drive Quieter, and Live Cleaner!

Transportation emissions are the largest contributor of greenhouse gases (GHGs) in San Antonio. In addition, as described in the Ozone Attainment Master Plan, increased ground-level ozone has a negative impact on public health.

EVSA unifies the City's policy, planning, and programming efforts around electric transportation. The Office of Sustainability is committed to making sustainable transportation accessible to all. In partnership with Blink, EV chargers are located at: Carver Community Cultural Center, San Antonio Zoo, Walker Ranch Senior Center (D9), Pearsall Park, and the Martinez Lot.

There are also temporary charging locations at Thousand Oaks Library, Central Library, Houston St. Garage, and the Convention Center Marina Garage.

We look forward to the advancements and upgrades 2023 has in store. We are in the



ELECTRIC VEHICLES SAN ANTONIO

process of upgrading the following charging stations to meet new accessibility standards:

- > Pearsall Park
- > Martinez Lot
- > SA Zoo
- > Carver Community Cultural Center

All future installations will be built to meet these new standards.

In the community our EVSA Ambassadors help promote EV benefits and awareness. Currently, our ambassador program has 25 members. If you are interested in learning more about EVSA, contact Harley.Hubbard@sanantonio.gov.

TO DATE, OUR PARTNERSHIP WITH BLINK HAS YIELDED THE FOLLOWING RESULTS:

- > 8,228.67 fewer pounds of CO2 emitted
- > 37.38 barrels of oil avoided
- > 1,567.11 gallons of fuel avoided
- > And over \$1,732.08 in driver savings on fuel costs



ADVANCEMENTS AND INNOVATION

Energy Efficiency Fund

The Energy Efficiency Fund (EEF) was established by City Council in 2011 to fund energy conservation within municipal facilities that reduce utility expenditures. The fund was designed to receive utility saving dollars and utility rebates from completed energy projects.

The Energy Management Program (EMP) is made possible through the use of the Energy Efficiency Fund to implement energy projects that reduce the city's annual utility consumption and cost, and meet our greenhouse gas (GHG) emissions reduction target by 2040.

PROJECT	FY 2023 ADOPTED BUDGET AMOUNT
1 Apache Creek Trail Park Lighting Retrofit Phase 2	\$616,640
2 Alamodome Interior LED Lighting Retrofit	\$300,000
3 Las Palmas Branch Library Lighting Retrofit	\$100,000
4 Memorial Branch Library Lighting Retrofit	\$240,596.70
5 EOC Retro-commissioning	\$74,956.50
6 PSAP Retro-commissioning	\$74,956.50
Total	\$1,407,149.70



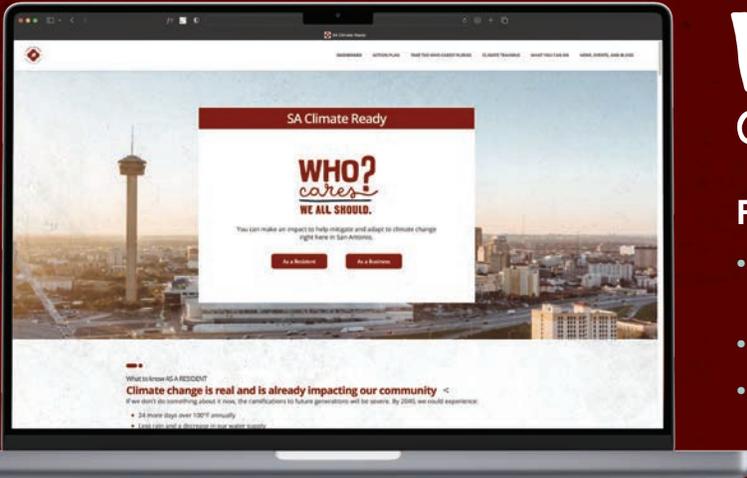
SUSTAINABLE DEVELOPMENT

Climate Plan Initiative aligns with the United Nations Sustainable Development Goals

The SA Climate Ready dashboard has been updated to showcase how local climate initiatives align with the UN's 17 Sustainable Development Goals (SDGs). Aligning local initiatives with the SDGs conveys that

action on climate change is a global cooperative effort to achieve universal goals around sustainability, equity, health, and natural resource protection.

SUSTAINABILITY DASHBOARD LAUNCHED SUMMER 2022



WHO? | WE ALL SHOULD.
cares!

FEATURES:

- Interactive *Who Cares?* pledge at saclimateready.org encourages community buy-in
- Social media, blog, mainstream online, print, and radio outreach
- Community events

Celebrating Earth Month with the launch of the SA Climate Ready Education & Empowerment Campaign

The SA Climate Ready education and empowerment public information campaign created its messaging after gathering public input from community stakeholders including the public-at-large, grassroots organizations representing frontline communities, the business community, and area youth. The organizing theme, *Who Cares?*,

stems from local research which recognizes that there are different points of belief, but offers the question for individuals to decide how climate impacts their life and the lives of future generations.

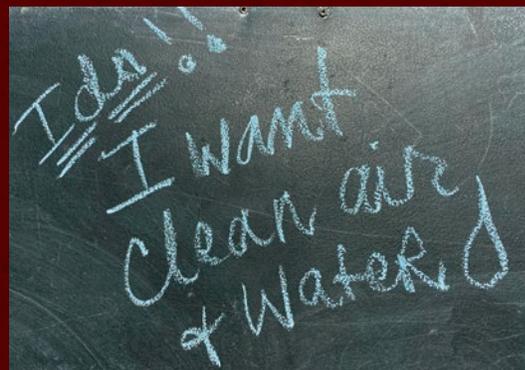
One of the components encourages residents and business owners to take the “I’m aware, and I care” pledge.

PLEDGE RECAP AS OF 11/22/22

- Total of **170 pledges**
- Total of **40 comments** on why individuals care about climate change

A few recent comments:

- “Would love for my grandchildren to have a safe, and healthy environment where they can enjoy the outdoors. We can all do our part; I will weatherize my home with solar panels and update my windows. I have recently changed my roof to keep my home cooler and warmer during different climates.”
- “Our children will have to deal with the outcome.”
- “The weather keeps getting worse, and we need to be prepared.”



WHO?
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SAN ANTONIO DOES.



ENGAGEMENT

Community-Based Organizations

Ten community-based organizations were chosen to ensure a two-way dialogue with residents not traditionally represented in policy discussions. Those organizations included Culturingua, Bike San Antonio, EmpowerHouse SA, disABILITYsa, Yanawana Herbolarios, Food Policy Council of San Antonio, San Antonio Nursing Consortium, SanArte Healing & Cultura Clinic, and Gardopia Gardens. Additionally, three non-profits representing the business community were engaged: Alamo Area Council of Governments, African American Chamber of Commerce SA and Ethical Network of San Antonio.

OS is partnering with these organizations by awarding micro-grants. These organizations are able to enhance their communication initiatives and provide a deeper and wider reach to the community while building flexibility to address issues of local priority. The organizations are promoting and engaging the community by creating informational and educational materials that are unique and innovative. Funding from the micro-grants has assisted in the development of educational workshops, and materials such as social media posts, banners, and posters for community distribution. Additionally, materials are available in English as well as in Spanish, Arabic, and Pashto.

WHO?
cares!
WE ALL SHOULD.



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تول بايد پاملرنه وكړو

بدلون دلته پيل كېږي
SAClimateReady.com

ENGAGEMENT

Mayor's Youth Engagement Council for Climate Initiatives

Third cohort of 25 local youth representatives selected for 2022-23



The 25 participants represent each City Council District and 18 different public, private, and charter schools. The mission of the Council is to empower San Antonio's next generation of climate champions with the tools they need to engage in community issues around climate change, environmental policy, and environmental justice.

INTERESTED IN ATTENDING AN UPCOMING MAYOR'S YOUTH ENGAGEMENT COUNCIL FOR CLIMATE INITIATIVES MEETING? CONTACT:

- > Julia.Murphy@sanantonio.gov
- > Harley.Hubbard@sanantonio.gov



SA Climate Ready Technical and Community and Climate Equity Advisory Committees

The SA Climate Ready Advisory Committees advise City staff and City Council on the implementation of the SA Climate Ready Plan, as well as other long-term sustainability plans, ensure that the implementation of all strategies continue to be centered in equity. These individuals have expertise in: energy, green buildings, transportation and mobility, food systems, land use, biodiversity, public health, neighborhoods, business and industry, higher education, military, and social/climate/racial justice.

ACCOMPLISHMENTS

- > **Establishment of Benchmarking and Energy Sub-Committees**
- > **Development of Equity Screening Tool (still in testing phase)**
- > **Provided input into the CPS Energy Generation Planning process**
- > **Approved and adopted Unified Development Code amendments**
- > **Provided input into the approved and adopted Unified Development Code and International Energy Conservation Code (IECC) process**

2022 BUILDING CODE UPDATES

Preparing for the Future

On November 10, 2022, San Antonio City Council adopted the new International Energy Conservation Code that will make EV Charging and Solar Panel installation more accessible for homeowners. The changes translate to an increase in energy savings.

- > The new building codes will require builders to install 240-volt outlets in newly constructed single-family homes, making it easier and more cost-effective to install electric vehicle chargers for residents who want them.

- > Newly constructed one-and two-family homes will require that the main electrical panel accommodate installation of a dual pole circuit breaker for future solar electric capacity.
- > The code also includes an increase in the number of EV charging spaces that each parking structure/lot must contain. Five percent of the total parking spaces will be designated for EV charging.

RESIDENTIAL

Roughly a

10% increase in energy savings from the 2018 adopted building code.

COMMERCIAL

Roughly a

5% increase in energy savings from the 2019 adopted building code.



RECOGNITIONS

Office of Sustainability is recognized for EVSA program by Women in Transportation, San Antonio Chapter (WTS-SAR)

On April 14, 2022, Julia Murphy and Harley Hubbard accepted the WTS-SAR 2021 Rosa Parks Diversity Leadership Award in recognition of their work to provide equitable access to electric mobility. The EVSA program advances transportation

equity and air quality mitigation. Women in Transportation San Antonio Chapter was founded in 2009 to support women in the transportation industry through collaboration, mentoring, and scholarships.



2022 City Services Satisfaction survey results

The results of the 2022 Community Survey touted high marks for the City of San Antonio in resident satisfaction with the City’s quality of services, ranking the city above the overall National Average in nine major categories of City services that were comparable. The City contracted ETC Institute, Inc. to conduct the survey, with more than 1,100 residents expressing that the city is moving in a positive direction in overall satisfaction; with its highest overall satisfaction rate since the City began conducting this survey 14 years ago. Sustainability

efforts to help preserve the environment and address climate change is among the services that received a 10 percent rating increase from 2018. Overall satisfaction with City services in San Antonio rated 74%. This is the highest satisfaction level achieved by the City since it began surveying residents in 2008. The City’s overall satisfaction is 31% above the national average. The consultant concluded that San Antonio is setting the standard for delivery of local governmental services.

MAJOR CITY SERVICES	2022	2018	DIFFERENCE
Overall Satisfaction in City Services	74%	64%	10%
San Antonio Library	94%	82%	12%
Fire/EMS	94%	83%	11%
Solid Waste	90%	77%	13%
San Antonio International Airport	84%	69%	15%
Public Health	84%	59%	25%
311	83%	70%	13%
Parks and Recreation	81%	70%	11%
Police	72%	64%	8%
Animal Care Services	64%	47%	17%
Sustainability Efforts to Help Preserve the Environment and Address Climate Change	59%	49%	10%
Code	57%	39%	18%
Public Works	54%	37%	17%

PARTNER HIGHLIGHTS

Parks and Recreation Tree planting program seeded for FY 2023



The San Antonio Parks and Recreation Department is dedicated to provide fun, safe, attractive, and affordable recreational opportunities & community spaces that represent the diversity and desires of our neighborhoods. In FY2023 the Parks and Recreation Department will invest \$470,000 in improvements to enhance their city-wide tree planting programs benefiting their tree canopy preservation and mitigation efforts.

The Howard W. Peak Greenway Trail System will celebrate 100 trail miles completed in FY2023.

This trail system currently has 92 trail miles completed, with 18 trail miles under design or construction.



Building and Equipment Services Department (BESD)



Two Administrative Directives have been recently updated to align with the City's goals around mitigating harmful ground level ozone and greenhouse gas (GHG) emissions. A.D. 1.4 Municipal Facilities Energy Policy has CoSA leading by example to establish and implement best practices to reduce energy consumption in municipal buildings and facilities by 5% annually. Buildings and the energy they use account for 30% of the municipal GHG inventory.

A.D. 9.3 Sustainable Fleet Acquisition & Management Policy outlines direction for evaluation and procurement for an environmentally and fiscally responsible vehicle and equipment fleet, while meeting the needs of City departments.

The priority is electric, or zero emission, vehicles and equipment. Transportation accounts for 21% of the City's GHG inventory.



Office of Historic Preservation

Deconstruction ordinance gives new purpose to housing materials

San Antonio City Council passed the Deconstruction Ordinance. Beginning October 1, 2023, homes approved for demolition will require that their dismantling be done by hand in order to maximize material salvage and reuse.

The ordinance aligns with strategies in the Climate Action and Adaptation Plan, Strategic Housing Implementation Plan (SHIP), Recycling and Resource Recovery Plan, and SA Ready To Work. For more information visit: www.sareuse.com.



THE ORDINANCE IS DESIGNED TO MEET OR CONTRIBUTE TO THE FOLLOWING GOALS:

- > Reduce construction and demolition waste
- > Mitigate the airborne pollution associated with building removal
- > Increase the availability of reclaimed building materials for local reuse
- > Develop and sustain a local workforce in construction, heritage trades, and deconstruction
- > Improve equity of building material access, including for use in affordable housing preservation and production
- > Encourage neighborhood continuity and the retention of historic building materials within the communities from which they originated

San Antonio Airport System

New carbon management milestone

San Antonio Airport System (SAAS) is proud to announce a new milestone in the Airport Carbon Accreditation's (ACA) carbon management certification program through Airports Council International-World. San Antonio International Airport renewed its Level 1 accreditation for Carbon Mapping and Stinson Municipal Airport achieved Level 1 status for the first time.

The ACA Certification program helps the Aviation Department lead the way in sustainability efforts and achieving the goals set in the SA Climate Ready Plan.

SAT and Stinson Municipal Airport are now part of 28 accredited airports across

North America that are at Level 1 mapping (representing 11% of North American Traffic). The ACA Carbon Mapping program includes 6 levels of carbon management that cover mapping carbon emission sources, tracking reductions, optimization, carbon neutrality, transformation and transition.

The next goal for the SAAS is to pursue Level 2 certification before October 1, 2023. With level 2 certification airport staff and consultants will develop a plan to manage San Antonio Airport System's carbon emissions and start to show emission reductions.



PARTNER HIGHLIGHTS

Solid Waste Management



Tests of two electric garbage trucks promises fuel savings, driver comfort, and less maintenance

In 2022, the Solid Waste Management Department conducted two electric garbage truck demos. The first was a Mack LRE chassis with a Heil body. It took 14 hours to fully charge before heading out on its route. The truck picked up roughly 240 carts, made two trips to the landfill, and dumped about two tons of material.

The truck ran smoothly but experienced disconnection issues while driving over the landfill scale.

Nevertheless, the truck drew a lot of attention everywhere people spotted it.

The second truck was a Mack rear load unit with an EV chassis, the most significant accomplishment with this truck was that it allowed the department to test its charging capabilities for the first time. After modifying

a breaker at the Southeast Service Center, the truck's charger was plugged directly into the facility's outlet.

There are additional benefits to electric trucks beyond fuel and emissions reduction. For example, they generate less heat in the cab due to the lack of an engine. There is also less preventative maintenance, including no oil changes, no engine air filter replacements, and no transmission failures or maintenance.

According to David Badillo, the Solid Waste Heavy Equipment Administrator, the department anticipates purchasing its first within the next three years. The department is looking into potential grant opportunities to facilitate the purchase. Additionally, investments will need to be made in charging infrastructure and fleet mechanic training.

2022 route rebalancing saves San Antonio millions

On November 7, 2022, Solid Waste Management Department implemented a change in collection dates affecting around 80 percent of the 370,000 residential customers.

According to SWMD Director David Newman, San Antonio's growth and customers producing more waste are the driving factors behind this initiative of route "rebalancing."

The increase in workload has caused drivers to work overtime due to making three trips to the landfill rather than the optimum two trips per truck, per route.

Rebalancing routes will make routes shorter, allowing employees to finish on time and will also get trucks back to the maintenance shop to make sure they are serviced as needed. Additionally, the Department has added 15 new drivers to support this change, eliminating Saturday collections altogether.

The change in collection dates will save the city \$2.5 million, eliminating the need to purchase additional trucks, which cost approximately \$400,000 each.



Eco-Scholar School Grant Opportunity!

As a collaboration with the Office of Sustainability, the two Department's will work together to distribute one million dollars in Resiliency, Energy, Efficiency and Sustainability Grant Funds to local schools with the purposes of: i.) expanding the Climate Action and Adaption Plan's (CAAP) reach; ii.) educating the next generation of school age children on the CAAP and empowering them to directly contribute to some of its

mitigation goals; and, iii.) creating community awareness of the CAAP, the grant program and the engagement of local schools.

Schools must create and complete a project, program, or educational activity that is directly focused on improving San Antonio's climate initiatives as outlined in the CAAP. The grant application process is now open through March 15, 2023. To find out more, scan the QR code.



THE GOALS OF THE CAAP:

- > **Increase Carbon-Free Energy** – Projects and programs that support the transition from fossil fuel energy sources to a less carbon-intensive portfolio.
- > **Reduce Building Energy Consumption** – Projects and programs that reduce the energy consumption of their buildings and will reduce the need for energy generated by high-carbon sources.
- > **Reduce Transportation Energy Consumption** – Projects and programs that reduce GHG emissions from the transportation system, including promotion of cleaner vehicles and reducing vehicle miles traveled.
- > **Advance the Circular Economy** – Projects and programs that reduce consumption, minimize waste, and encourage material reuse.
- > **Promote Biodiversity and Healthy Ecosystems** – Projects and programs that protect and preserve existing natural ecosystems and promote the development of solutions to mimic natural response.
- > **Educate and Empower** – Projects that educate the community about climate action and adaptation.

The grant funding will have a three-tier structure. Tier one projects could receive up to \$10,000 based on their scope and projected positive impacts. Tier two projects could receive up to \$5,000 and for Tier three projects, up to \$3,000.



For more information about The City
of San Antonio's sustainability efforts,
visit the Office of Sustainability website at
sanantonio.gov/sustainability

and the SA Sustainability Dashboard at
sasustainability.com



SUSTAINABILITY