

2021 San Antonio Climate Ready Plan Annual Report



CITY OF SAN ANTONIO
OFFICE OF SUSTAINABILITY

City of San Antonio Office of Sustainability

Inside this Annual Report, you'll find 2021 highlights of SA Climate Ready initiatives in clean energy, sustainable food systems, vehicle electrification, safe streets, heat island effect mitigation, education and empowerment, and climate equity. For a deeper dive, please visit sanantonio.gov/sustainability and sasustainability.com.



Top – Douglas Melnick, Murray Myers, Julia Murphy, Harley Hubbard, Andra Nava-Garcia
Bottom – Mary Gonzalez, Cynthia Dittrich, John Bailey, Golda Obinzu, Minerva Defee, Gloria Scherzinger
Not pictured – Adil Chowdhury

A Word from our Chief Sustainability Officer Douglas Melnick

Friends,

As we begin another year, we wish to extend heartfelt wishes of peace and safety from the Office of Sustainability. Our work continues to focus on ways we can enhance livability, sustainability, and resilience in San Antonio. We sincerely appreciate those who have shared their time and talent to help us advance energy efficiency, smart and clean transportation, natural resource conservation, and climate equity. As we continue to prioritize strategies that prepare us for the future, we are proud of the investments San Antonio is making in electrifying our municipal fleet, supporting low-cost funding opportunities for enhancing the efficiency of our building stock, empowering community members and local youth around climate action, mitigating extreme heat, and installing state-of-the-art infrastructure to encourage electric vehicles. We invite you to read our SA Climate Ready 2021 Progress Report online. Much, much more is on the horizon, and we are excited to greet 2022 with a full roster of transformative projects. For a comprehensive look at our portfolio, please visit sasustainability.com.

SA Climate Ready Advisory Committees

The Advisory Committees are important partners to bring climate action and preparedness to fruition through implementation of the strategies in the SA Climate Ready Plan.

Both committees chose their priorities for the year, which include one mitigation strategy, one adaptation strategy, and one strategy that encompasses both:

- Energy Benchmarking (mitigation)
- Resilience Hubs (adaptation)
- Engagement & Communications (both)

The Tech & Community committee also proposed amendments to the Unified Development Code and to the 2022-2027 (and beyond) Bond Programs.



Melissa Bryant
Chair, Technical & Community
Advisory Committee
San Antonio River Authority



James Cooper
Co-chair, Technical & Community
Advisory Committee
Project Quest



Jesus Garcia-Gonzalez
Chair, Climate Equity
Advisory Committee
Catholic Charities Archdiocese
of San Antonio, Inc.



Dr. Adelita Cantu
Co-Chair, Climate Equity
Advisory Committee
UT Health San Antonio

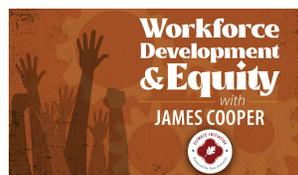
Committee Members Share Their Expertise

In 2021, the Office of Sustainability conducted interviews with committee members. Click on each image below to read the interviews. Alternatively, you can visit sasustainability.com/news-blogs-and-events/blog to see all of the interviews conducted in 2021.

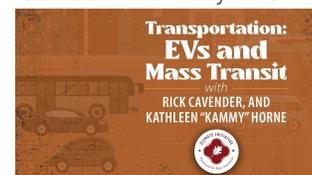
Health & Climate with
Dr. Adelita Cantu



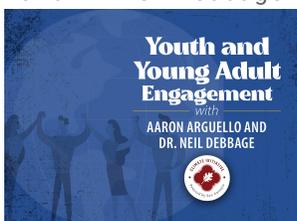
Workforce Development & Equity with
James Cooper



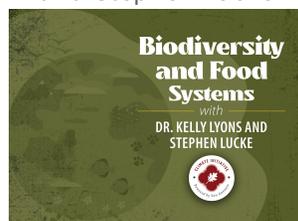
EV's and Mass Transit with
Rick Cavender &
Kathleen "Kammy" Horne



Youth and Young Adult
Engagement with Aaron Arguello
and Dr. Neil Debbage



Biodiversity and Food Systems
with Dr. Kelly Lyons
and Stephen Lucke



2021 Recognitions

Office of Sustainability Recognized for 2nd Year by Texan by Nature

For the second year in a row, the Office of Sustainability has been recognized as a leader in conservation and sustainability by Texan by Nature, a non-profit founded by former First Lady Laura Bush. The "TxN 20" recognition highlights the work of public and private sector entities across 12 industry sectors who are committed to conservation through their projects and programs, best practices, and lessons learned. This year's honorees also include: Alamo Group, Bank of America, BNSF, CEMEX, Dell Technologies, Desert Door Texas Sotol, DFW International Airport, Farmer Brothers, H-E-B, HDR, Sanderson Farms, Shell Oil Company, Sysco, Texas Health Resources, Texas Instruments, The Beck Group, Ltd., Vistra Corp., Walmart, and Waste Management.



2021 Recognitions

City Accepted into Carbon Disclosure Project's Catalyze Cohort



2021 Leadership Level

The Office of Sustainability is one of 12 local governments across the U.S. that was accepted into the [Carbon Disclosure Project's](#) (CDP) Catalyze Cohort to build skill sets in project conceptualization, project development, and financing mechanisms in 2022. The CDP cohort will workshop transportation and green infrastructure projects that are seeking financing or develop funding strategies. The cohort is spread across multiple departments including Public Works, Transportation, and Innovation, as well as the Southwest Research Institute, to help spread knowledge and resources cross-functionally.

San Antonio is on CDP's Cities A List with an A- grade for publicly disclosing a city-wide emissions inventory, an emissions reduction target and renewable energy target, a published a climate action plan, and a climate risk and vulnerability assessment and climate adaptation plan.

2021 Recognitions

Global Covenant of Mayors Awards City for Adaptation and Mitigation

The Global Covenant of Mayors for Climate and Energy (GCoM) is the largest global alliance for city climate leadership, built upon the commitment of over 11,500 cities and local governments. Based on current targets and actions, GCoM cities and local governments could collectively reduce global emissions by 3.8 GtCO₂e annually in 2050, comprising one-quarter of total urban emissions abatement potential. As part of the GCoM cohort, San Antonio committed to advance climate action in three key areas: reducing greenhouse gas emissions, identifying – and adapting to – the risks associated with climate change, and increasing access to clean and affordable energy. In 2021, the city was awarded the adaptation and mitigation badges.



2021 Recognitions

Mayor's Youth Engagement Council for Climate Initiatives Receives National Recognition



**THE UNITED STATES
CONFERENCE OF MAYORS**

The success of the MYECCI was recognized by The United States Conference of Mayors, receiving the award of Honorable Mention in the Large City Category of the Mayors Climate Protection Award (MCPA).

"I couldn't be prouder of how our young residents are stepping up to participate in the local climate conversation. Our youth are joining people around the world who are helping to craft a sustainable future for their communities." - Mayor Ron Nirenberg

The MYECCI is administered by EcoRise and funded in part by the Hollomon Price Foundation. Read more about the Mayor's Youth Engagement Council for Climate Initiatives on p. 6 of this report.

Education & Empowerment

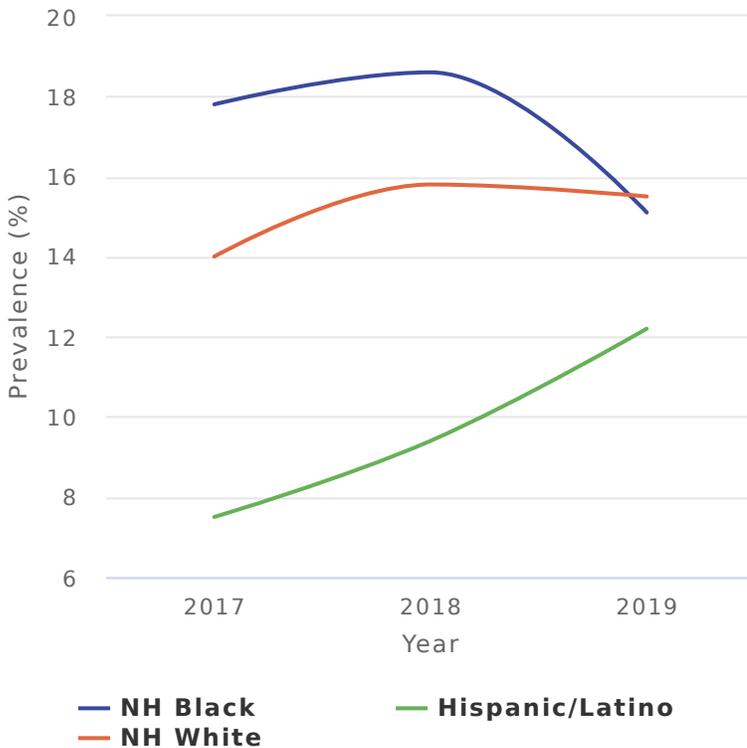
Equitable and Accessible Engagement

Education & Empowerment is a foundational strategy for climate action, included in the SA Climate Ready Plan. The City is working with Texas Creative, Ltd. (TXC), a woman- and locally-owned public relations company, to ensure that the City of San Antonio communicates with the public in engaging and accessible ways. TXC has provided direct funding for local grassroots organizations, including [disABILITYsa](#), [The Empower House](#) (formerly Martinez Street Women’s Center), [Yanawana Herbolarios](#), and [The Health Collaborative](#), to engage with frontline communities, and conduct a study to understand attitudes and perceptions of community members.

The study found that **most San Antonio adults believe that climate change is occurring (81%) and having an impact on San Antonio (78%)**, and that government and business cooperation is needed to address climate change.



Self-Reported Asthma Rates in Texas



Percent (%) of Surveyed Adults Reporting They Ever Had Asthma, by Race/Ethnicity, Texas

Education & Empowerment Extreme Weather and Health Impacts

The Office of Sustainability commissioned the Health Collaborative (THC) to conduct a thorough assessment of the ways in which the changing climate is likely to exacerbate (and perhaps even cause) illnesses, injuries and even deaths through extreme weather events and an increased frequency and severity of diseases exacerbated by the climate crisis as a planning guidance document and vital supplemental companion to the City’s Climate Ready Action Plan. THC was tasked with determining what threats pollution-induced environmental changes pose to the City of San Antonio and to quantify the excess morbidity and mortality that can be attributed to the climate crisis. This serves the greater purpose of crafting evidence-based strategies on how to mitigate these losses and offers insight into the public health and safety toll climate change can affect by the year 2036 if actions such as those suggested are not promptly undertaken. [The full report](#) can be accessed on the City’s sustainability website.

Education & Empowerment

Youth Engagement for Climate Initiatives

The second cohort of the Mayor's Youth Engagement Council for Climate Initiatives (MYECCI), managed by EcoRise and funded by the Holloman Price Foundation, launched in Fall 2021 and consists of students representing 10 school districts with at least two students from each of the City's Council Districts. MYECCI is one initiative of the Office of Sustainability's climate education and empowerment program. Students will participate in citywide climate engagement and education campaigns to incorporate youth concerns and will have the opportunity to engage with City Council members.



Education & Empowerment

What's the MYECCI Been Up To?

The MYECCI had its first successful cohort in the 2020-2021 school year. The cohort worked on projects and policy recommendations on the following topics: Infrastructure and Energy; Biodiversity; Community Health and Food Security; and Transportation and Housing. Examples of resulting projects including enhancing a bus stop with greenery and shade, installing a bug hotel, and starting a community garden. Six students who participated in the first MYECCI cohort were selected for paid summer internships generously funded by the Hollomon Price Foundation. The interns worked in the Office of Sustainability, Office of Historic Preservation, World Heritage Office, and partner organizations including the Texas Butterfly Ranch, and the San Antonio River Foundation. The MYECCI program was recognized with Honorable Mention in the Large City category as part of the 2021 Mayors Climate Protection Awards hosted by the US Conference of Mayors.



Nicole Romero and Ashley Bird are shown at the Texas Butterfly Ranch.



The program was recognized by the American Planning Association-Texas Chapter, achieving the statewide 2021 Environmental Planning Award.

Education & Empowerment Climate Education and Empowerment for City Staff

In order to educate and empower city staff, the Office of Sustainability created a new training series focused on climate change called “**Understanding Climate Change & Action in San Antonio**” that was attended by over 8,000 employees. The training program was well attended, received positive reviews, and inspired most attendees to apply something new that they learned to their personal or work life. The program was **recognized by the American Planning Association-Texas Chapter**, achieving the statewide 2021 Environmental Planning Award - Gold.

“I received the Climate Change and Action training series and it sparked my interest...I am very interested in learning more about San Antonio’s efforts towards combating environmental concerns.” - Development Services Department

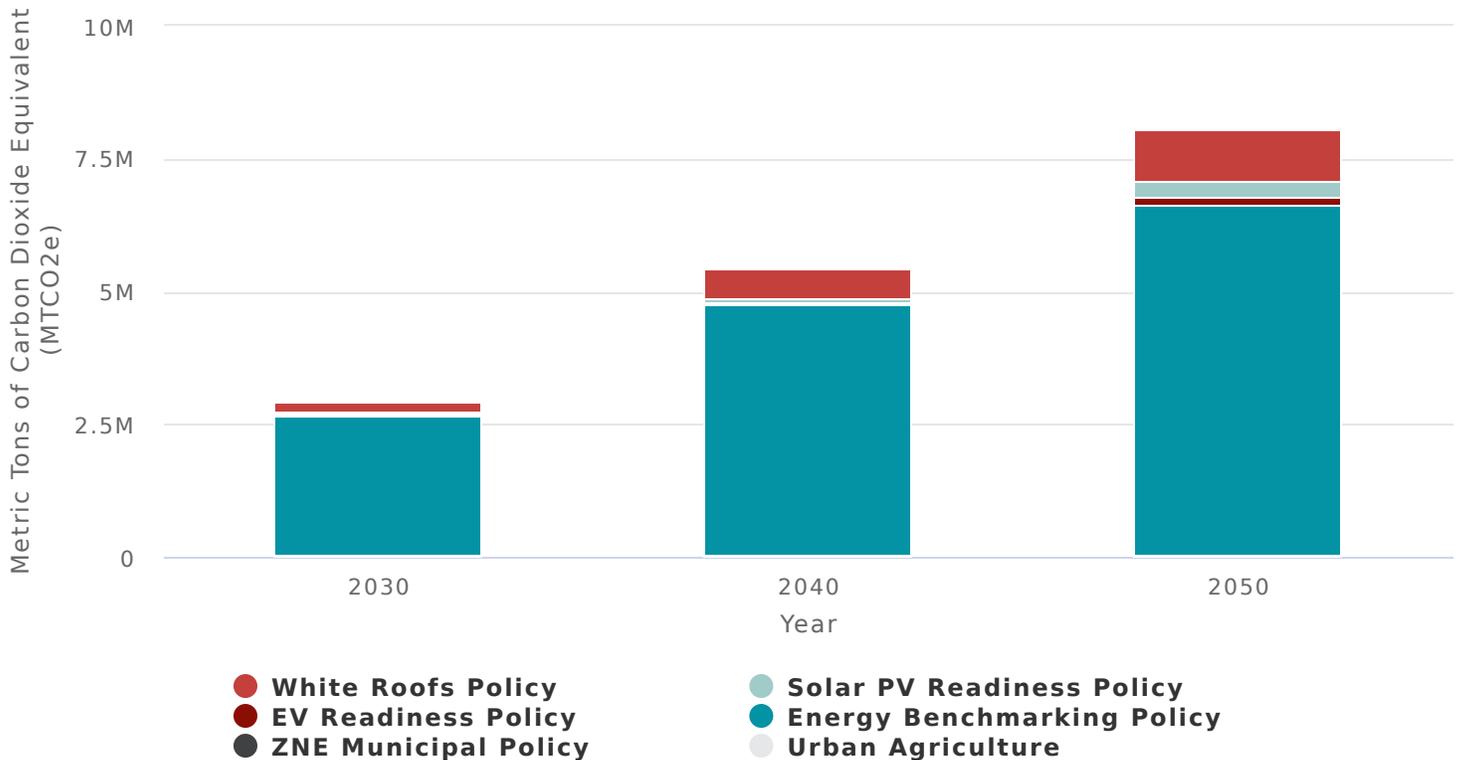
“My daughter is super into the climate change issues, so it’s something I can bond with her on, plus it’s a very timely and important issue!” - Finance Department



Education & Empowerment

Measuring Impact of Climate Ready Strategies

To reach our goal of being carbon neutral by 2050, the City needs to implement high-impact strategies that will reduce our emissions. San Antonio analyzed the potential impact of 6 key climate action strategies prioritized within the SA Climate Ready Plan and found that, if enacted as soon as possible, these strategies would get us to 46% of our reduction target. The strategies included energy benchmarking for commercial and multi-family buildings, white roofs and energy insulation building code, electric vehicle charger readiness building code, solar readiness building code, zero net energy in municipal buildings, and incentivizing urban agriculture. Energy benchmarking alone would return \$4.78 in benefits for every \$1 invested. To read more about the strategies, refer to the [Cost-Benefit Analysis of Key Climate Ready Strategies report](#).



Advancements in Transportation

Building a Movement for Safer Streets

San Antonio residents desire safer and more convenient options to walk and bike, but still too many of our streets are designed for fast moving cars. That is beginning to change with the creation of a unique organization that has worked closely with City staff and community partners to promote sustainable, people-first transportation policies and projects. [ActivateSA](#), a volunteer-led tactical planning initiative and think-tank, is working collectively to implement bold new active transportation infrastructure that serves every San Antonian through advocacy, consensus-building, and technical design.



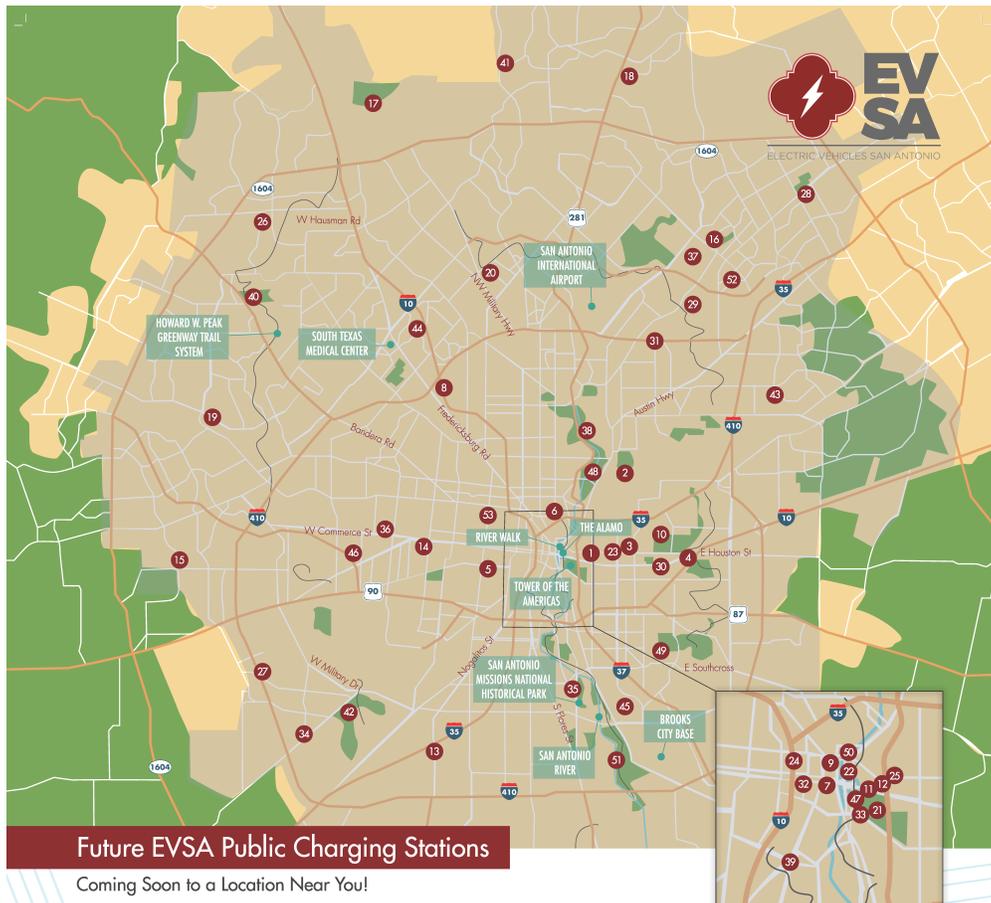
“Activating” San Antonio can empower residents to get around safely and efficiently.

Advancements in Transportation Making EV Chargers More Accessible and Convenient



EVSA and Blink Charging installed their first EV charging station at the San Antonio Zoo.

[Electric Vehicles San Antonio](#) (EVSA) kicked off a partnership with Blink Charging to add over 100 [publicly accessible electric vehicle \(EV\) charging ports](#) to over 50 City-owned sites, like libraries and parks, to encourage EV adoption. The City, including Mayor Nirenberg, held a ribbon-cutting event at the first installation site, the San Antonio Zoo, in Fall 2021 to launch the project. To raise the public’s awareness of electric vehicles, the Office of Sustainability launched a comprehensive public information campaign to increase education and engagement about EVs.



Click for larger version.



The Travis Building will see upgrades such as reflective roofing, LED lighting, water-conserving plumbing modifications, and HVAC upgrades.

Advancements in Energy Sustainability Upgrades with PACE Program

On March 5, 2020, the City of San Antonio City Council officially established the [Property Assessed Clean Energy \(PACE\) program](#) within the city limits. PACE is an innovative financing tool that allows owners of commercial, industrial, nonprofit, and large multi-family residential properties access to low-cost, long-term loans to conduct energy efficiency and water conservation improvements to real property. Since the establishment of the PACE Act in Texas, over 35 counties and cities have implemented the program in their jurisdictions, resulting in 26 executed projects valued at over \$100 million in loans.

San Antonio’s historic Travis Building will be undergoing a \$5 million renovation for efficiency upgrades with support secured through the TX-PACE program. The upgrades will include reflective roofing, LED lighting, water-conserving plumbing modifications, and HVAC upgrades that will result in an estimated \$8.4 million in energy cost savings over its lifespan. The building will ultimately house 63 multifamily units and keep its dedicated retail space on the ground floor. Renovations are expected to be complete in spring of 2022.

For any inquiries regarding PACE, please email Lyle Hufstetler lhufstetler@aacog.com with AACOG or Thomas Davis Thomas.Davis@sanantonio.gov with the City of San Antonio.

Innovation in Climate Action Paving the Way for Neighborhood Cooling

The City of San Antonio became the **1st city in Texas** and the **3rd major city in the US** to utilize cool pavement as a heat mitigation tool. Cool pavement is one solution to achieve neighborhood-level cooling by applying an asphalt treatment to reflect the sun’s rays while also protecting existing pavements. The City applied a cool pavement seal coat, donated by GuardTop, at the east end of Hays Street Bridge and will monitor and share the results in Fall of 2022.

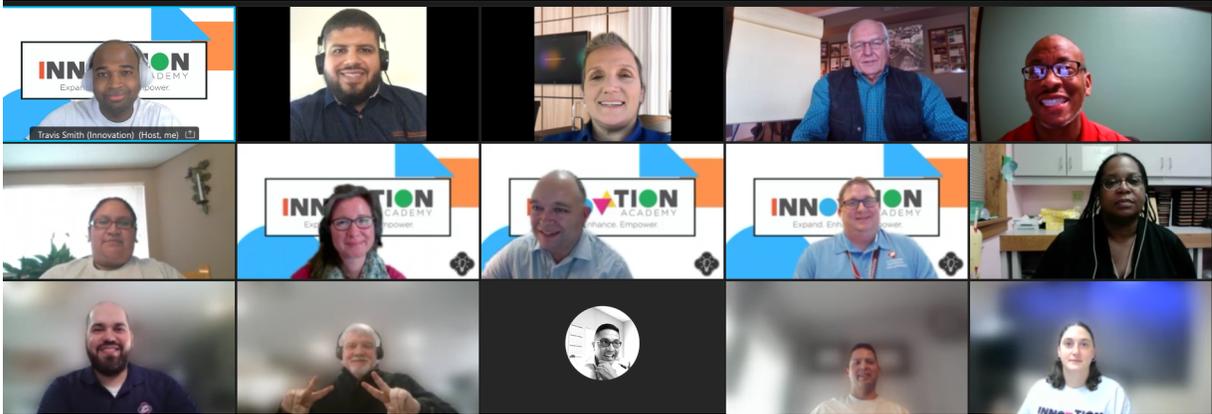


Cool pavement is a water-based asphalt applied over existing asphalt.

Innovation in Climate Action

Innovation Academy Helps Develop Climate Solution

Twice a year, the Office of Innovation hosts the Innovation Academy for city employees to develop foundational skills and techniques in process redesign, user-centered design, and data analytics to improve service delivery across the city. The Office of Sustainability partnered with Innovation to develop the first-ever cohort focused on the SA Climate Ready Plan. Departments like Public Works, Human Services, Metro Health, and Historic Preservation have learned skills that will help them accelerate climate solutions within municipal operations. Some of the cohort's projects include building efficiency and design, electrifying the City fleet, mitigating urban heat islands, and a reuse innovation center. You can follow these projects and other CAAP updates on the Sustainability Dashboard at sasustainability.com.



Innovation in Climate Action

San Antonio Participating in SDGs Cities Challenge

In 2021, the Office of Sustainability was invited to participate in the [Sustainable Development Goals \(SDGs\) Cities Challenge](#). In addition, the City of San Antonio (Office of Sustainability, Word Heritage Office, MetroHealth, Planning, and Solid Waste Management), with partners Gardopia and the Food Policy Council, convened a local Food Systems Dialogue in 2021. The goal of the dialog is to transform the way we produce, consume, dispose of, and think about food to serve as a roadmap for the future. This dialogue is the urgent first of step in the process of exploring our local food system challenges and identifying opportunities to build better partnerships.



The Sustainable Development Goals are a collection of 17 global goals aimed at achieving a sustainable future for all.

Innovation in Climate Action

North American Friendship Garden & Monarch Butterfly and Pollinator Festival



Photo taken at the Pollinator Festival. Photo credit: Texas Butterfly Ranch and Symbio Hush

The North American Friendship Garden, located at Confluence Park, has exceeded all expectations and continues to serve as a valuable resource in helping to increase biodiversity and cultivate environmental stewards. Throughout the first six months, numerous pollinators, including Monarch butterflies, were spotted throughout the North American Friendship Garden, which serves as an educational resource for field trips and tours throughout Confluence Park.

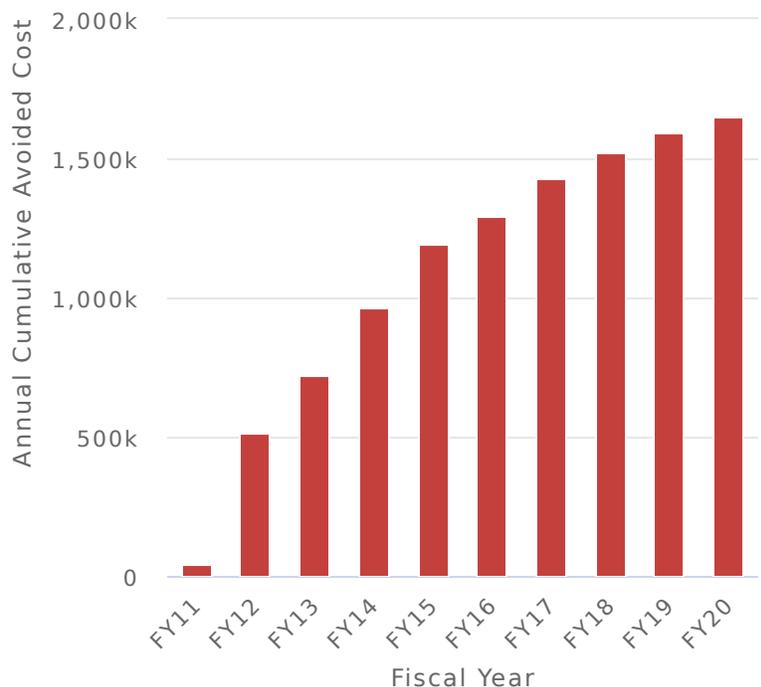
To date, the Seed Library has distributed over 1,600 free seed packets comprised of pollinator-preferred plants, herb, veggie, and fruit seeds. The Bug Hotel welcomed many different occupants including solitary bees and pollinating beetles. Additional milkweeds will be planted on an annual basis to create a more substantial area for migrating Monarch butterflies and other pollinators.

The North American Friendship Garden has also been adopted into the San Antonio River Authority's Confluence Park Be River Proud field trip curriculum. Over 900 students and teachers have received an interactive education on pollinators and native plants in the friendship context since the garden's grand opening.

The Office of Sustainability participated in the sixth annual Monarch Butterfly and Pollinator Festival, which was held at Confluence Park. The event was a great success with more than 1,000 attendees and around 600 butterflies tagged with the name of someone who passed away in 2021. Confluence Park was chosen as the location for the return to an in-person event because the park has a larval garden, which features host plants for butterflies to lay eggs, and is close to the river, where a great variety of flowers continue to bloom during autumn.

Leading by Example Municipal Facilities are Becoming More Efficient

Energy efficiency is a critical piece of reducing our overall emissions. The Energy Efficiency Fund (EEF) was established by City Council in 2011 to fund energy conservation within municipal facilities that reduce utility expenditures. The EEF has completed 419 energy projects within 190 municipal facilities to date, which has resulted in an 11% overall reduction in energy use and a total cumulative cost savings of \$1.65 million. These energy projects helped to reduce the City's carbon dioxide emissions by almost 60,000 metric tons which is equivalent to the emissions of approximately 12,600 vehicles driven for one year or 20,417 tons of landfill waste.



● New Projects Annual Avoided Utility Costs

Partner Highlights

ReWorksSA: Connecting Local Businesses to Recycling Solutions

The City of San Antonio is transforming their programs to provide resources for local businesses to reduce their carbon footprint. [ReWorksSA](#), a program launched in 2018, helps local businesses start or improve recycling programs in the workplace. In 2021, ReWorksSA became one of the City's key climate initiatives, forming a partnership to bring measurable results to San Antonio's waste and carbon footprint. Research shows that both customers and employees care about an organization's corporate social responsibility, meaning that implementing or improving a business's recycling program could contribute to business growth and better employee retention.

Through a billboard campaign, San Antonio residents were reminded that they could find, and do business with, businesses that have the City's sustainability as a top priority.



Learn which [businesses in your community](#) are ReWorksSA certified recyclers!



Partner Highlights

ReWorks Pinnacle Award

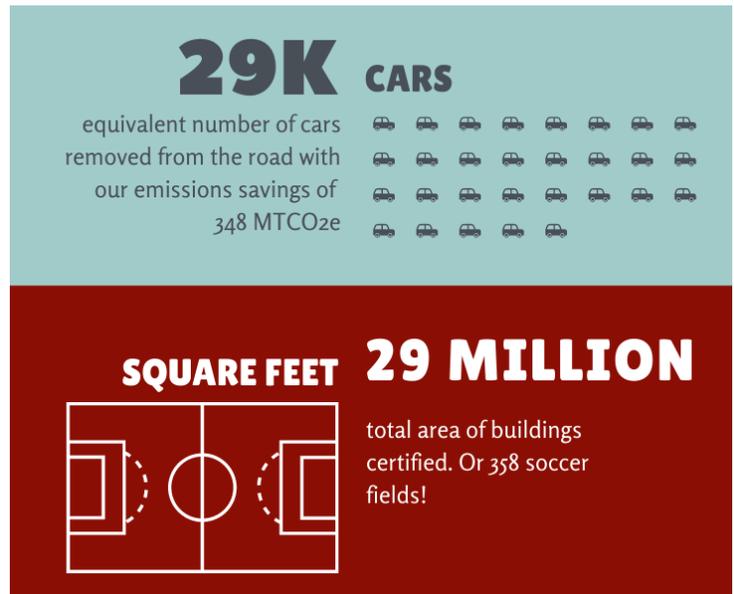
[ReWorksSA](#) was launched in 2018 to help the local business community start or improve recycling in the workplace. Now the program includes the areas of water conservation, energy conservation and renewable energy, transportation and travel policies, and general environmental policies as well as recycling. Businesses can earn points determining their certification level and receive recognition by the City of San Antonio as industry leaders.

In the summer of 2021, ReWorksSA was upgraded to include the new Pinnacle Award. This award is the City's highest level of certification and is bestowed only to companies making the City's sustainability goals a top priority. The award is a joint endeavor between the Solid Waste Management Department, that developed ReWorksSA, and the Office of Sustainability. The other certification levels are gold, silver, and bronze.

Partner Highlights

Building a Greener San Antonio

[Build San Antonio Green](#) (BSAG) is San Antonio's local green building program and was founded in 2001 to reduce emissions in the community. This is accomplished through certification of above code, resilient, and climate ready buildings, and the unbiased technical resource tool, Bring Solar Home. Focused on energy, water, site, materials, indoor air quality, renewables, EVs, BSAG has certified over 29 million sq. ft. of green buildings, including over 12,898 single family homes and 14 multifamily, mixed-use, and commercial buildings. These projects equate to 21 megawatts of peak energy demand reduction and reduce the City's emissions by saving over 348 million pounds of CO2, which is equivalent to taking over 29,000 cars off our roads each year.



BSAG certification provides transparency between developers and home buyers looking for a more sustainable home.



San Antonio's Deconstruction & Salvage Initiative aims to recapture building materials traditionally lost to the landfill.

Partner Highlights

Reclaiming Value Through Deconstruction & Salvage

[Deconstruction](#), or the systematic disassembly of buildings to maximize material reuse potential, brings many benefits like increasing landfill diversion and creating new sources of value, which can be measured in local job creation, retail sales, and advancements in building materials innovation. In 2021, the Office of Historic Preservation published the City's first [Deconstruction Strategic Plan](#), which was awarded a Reuse Innovator of the Year Award by national nonprofit Build Reuse.

Partner Highlights

Training our Workforce Through the Living Heritage Trades Academy

The [Living Heritage Trades Academy](#) (LHTA) provides workforce training in traditional trades, or pre-1960 traditional building construction methods and materials. The program provides a 10-week apprenticeship under the supervision of a reputable local contractor, amounting to 300-400 hours of instruction. In 2021, more than 20 students were trained through the program, learning high-demand repair and restoration skills including wood window restoration, architectural carpentry, and traditional house carpentry.



With a shortage of skilled and experienced trade practitioners looming, LHTA fills an important gap in the local workforce.

ECORISE BY THE NUMBERS

18,360 STUDENTS

340 TEACHERS

11 DISTRICTS

PROFESSIONAL DEVELOPMENT

TRAININGS 23

IN ATTENDANCE 297

PD HOURS 59



Sponsored by:
City of San Antonio and EPA

EcoRise served 18,360 students and 340 teachers across 11 districts. 297 students and teachers attended 23 trainings.

Partner Highlights

EcoRise Program Brings Educational Awareness to Sustainability

EcoRise inspires a new generation of leaders to design a sustainable future for all. Since 2008, their K-12 school program has empowered youth to tackle real-world challenges in their communities by teaching sustainability, design innovation, and social entrepreneurship. EcoRise provides programming to 48 elementary schools, 17 middle schools, and 15 high schools.

According to year-end surveys of EcoRise participants, **over 90% of teachers who participated** are more aware of sustainability issues in their communities, have a better understanding of sustainability including the relationship to triple bottom line and social justice, and are more confident integrating sustainability and environmental issues in their teaching.

Over 90% of the surveyed students have a better understanding of why sustainability is important in their community and how they can take action to make their community more sustainable. Over 80% are more committed to working on sustainability issues in their communities!

American Cities Climate Challenge

As one of 25 cities participating in the American Cities Climate Challenge (ACCC), San Antonio's Office of Sustainability has received support and technical guidance from Bloomberg Philanthropies to assist with the implementation of strategies from the Climate Action & Adaptation Plan, SA Climate Ready Plan. The Office of Sustainability has also had the opportunity to work with two Climate Advisors focused on [buildings and energy](#) and [transportation](#) greenhouse gas mitigation initiatives, which will be extended through June 2022. Climate Advisors are employees of Natural Resources Defense Council (NRDC) and not the City of San Antonio.



San Antonio and the 24 other cities participating in the ACCC are on track to collectively reduce emissions by 32% and surpass 2025 Paris Climate Goals.

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