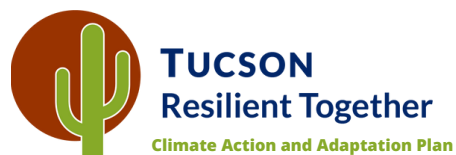




2024 OCTOBER QUARTERLY REPORT



TUCSON
Resilient Together
Climate Action and Adaptation Plan

Attachment A



climateactionplan@tucsonaz.gov



<https://climateaction.tucsonaz.gov/>

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SUMMARY

This quarterly report generally covers the period from July to September 2024 and provides updates on the climate actions taken by various city departments and programs. Key highlights include securing funding for climate-related projects, successfully coordinating a regional heat season, launching the energy sourcing study, and continuing to position Tucson as a national leader in climate action.

- **Grant Success:** Securing **\$16.1 million** to enhance bus stops and replace aging infrastructure; reduce turf and asphalt while increasing green stormwater infrastructure and trees; and enhance workforce development programs with community colleges to improve energy conservation building codes in Arizona.
- **Coordinated Heat Season:** Collaborating with multi-jurisdictional and cross-sector partners to implement a regional heat preparedness and relief strategy for summer 2024, resulting in expanded **heat relief resources** throughout the region.
- **Energy Sourcing Study:** The City has initiated an Energy Sourcing Study with **GDS Associates, Inc.** The study will explore options like municipal energy distribution, Community Choice Aggregation, renewable energy agreements, and microgrids. A presentation on the study's scope will be given to the **Commission on Climate, Energy, and Sustainability (CCES)** in **October**.
- **Climate Leadership:** **Mayor Romero** welcomed **Acting Secretary of Labor Julie Su**, who, along with panelists from local labor unions and worker organizations, discussed the importance of heat protections for workers.



Additionally, the City of Tucson's Chief Resilience Officer participated in the first-ever **White House Extreme Heat Summit**, where federal resources were presented, and attendees discussed their cities' and organizations' efforts to advance heat resilience.



Finally, the **City of Tucson's Heat Action Roadmap** received the **Arizona Chapter of the American Planning Association's** award in the **"Strengthening Communities: Resilience & Sustainability"** category. It serves as a model for other Arizona cities to adopt.



- **Urban Forestry Program:** The Urban Forestry Program is advancing the **Community Forest Action Plan** and **Tree Standards**, collaborating with city staff, partners, and residents. Since 2020, over 120,000 trees have been planted as part of the **Tucson Million Tree initiative**, supported by community organizations and volunteers. In fall 2024, the program began implementing the **\$5 million Grow Tucson grant** from the USDA Forest Service, with a **new Grant Manager** and five community partners aiding this effort.

CATEGORIES

TUCSON RESILIENT TOGETHER



Governance and Leadership

Actions to embed climate action across City operations and coordinate implementation of Tucson Resilient Together with community organizations, businesses, and regional partners.

Climate Action Team

During this reporting period, the Climate Action Team (CAT) welcomed **Kristina Swallow** as the new leader overseeing the Chief Resilience Officer and the City's climate efforts. While we are saddened by Liz Morales' transition to other important focus areas, we look forward to working with Kristina as we continue implementing Tucson Resilient Together.

CAT members also collaborated with the Plan Tucson team to provide targeted input on the draft. By working across departments and supporting various initiatives, the CAT plays a crucial role in enhancing our overall climate and sustainability goals, ensuring a more cohesive and effective approach to resilience in our community.



Kristina Swallow

ASSISTANT CITY
MANAGER

Office of the Manager



All CAT members bring unique expertise, making them valuable assets to the team. This reporting period, we are highlighting **Michael Catanzaro**, the City's Energy Manager and a strong advocate for sustainability and climate action initiatives.

CLIMATE ACTION TEAM

Spotlight

Michael has been advancing climate action and sustainability initiatives for more than a decade.

MICHAEL CATANZARO

Energy Manager
Environmental and
General Service
Department

Michael Catanzaro began his sustainability journey as the first Director of Sustainability at the University of San Diego (USD) in 2010. During his tenure, he played a pivotal role in reducing the university's energy consumption by more than 28% (10 million kWh), water usage by over 30% (38 million gallons), and carbon emissions by 15% (4,873 MTCO₂E). He also established the first full-time Electronics Recycling Center on a college campus, diverting over 4 million pounds of electronic waste from landfills. Additionally, he helped create the university's first climate action plan and was a founding member of the San Diego Climate Collaborative. His efforts contributed to USD's top 10 ranking in 2017 for U.S. university sustainability programs.

Currently serving as the Energy Manager for the City of Tucson, Michael is spearheading the installation of over 18 megawatts of solar power across city facilities and has launched a revolving loan fund to support the City's sustainability goals.

Exciting news!

The CAT's community outreach and engagement capacity has grown with the hiring of **Karina Martinez** as the new **Community Relations Coordinator**.



Welcome

KARINA
MARTINEZ

.....

Karina Martinez is an environmental professional specializing in climate resilience, environmental compliance, and community engagement. She holds a Master's degree in Development Practice and is pursuing a Ph.D. at the University of Arizona, focusing on climate vulnerability in manufactured housing. Karina has led climate initiatives on both sides of the U.S.-Mexico border and contributed to the development of the City of Tucson's Heat Action Roadmap.



Karina was selected through a highly competitive process, with many applicants competing for the position. After the Review Committee evaluated all applications, the top candidates were interviewed, followed by final interviews with the Chief Resilience Officer for the leading contenders. Karina stood out for her extensive experience in community engagement within Tucson and her expertise in climate and heat resilience, among other qualifications.

Climate action funding

City of Tucson departments and programs actively seek funding opportunities to advance climate action and sustainability efforts in Tucson. Since 2023, the City has secured **\$62.5 million** for climate-related projects, including **\$16.1 million** awarded during the current reporting period.

Year	Grants	Total
2023 (TRT Report 1 of 2)	\$21.5M FTA Grant to replace all remaining high emissions producing diesel-fuel buses in Sun Tran's fleet. \$3M WIFA Grant to begin the transition to Advanced Metering Infrastructure to improve customer water usage tracking, information access, and accountability.	\$24.5M
2023 (TRT Report 2 of 2)	\$5M USDA Grant for green spaces and workforce development. \$3.5M DOE Grant to create a southwest climate-adapted building codes in collaboration with partners.	\$8.5M
2024 (TRT Report 1 of 4)	\$829,696 FEMA Grant for resilience hub planning. \$1.5M WIFA to implement a Turf Removal Program. \$1M Reconnecting Communities and Neighborhoods Grant for the Nebraska Bridge.	\$3.3M *
2024 (TRT Report 2 of 4)	\$2.6M Reconnecting Communities and Neighborhoods Grant to create an east-west bicycle boulevard connecting Oracle Road to Columbus Boulevard.	\$2.6M *
2024 (TRT Report 3 of 4)	\$3M WIFA Grant for AMI Phase 2 \$1.3M WIFA Water Conservation Grant (Round 4) to upgrade water fixtures and appliances in City-owned public housing. \$3M WIFA Water Conservation Grant (Round 5) to expand the SHARP facility. \$200,000 Better Bike Share Partnership to assess and more equitably distribute existing bike share actions and assets.	\$7.5M *
2024 (TRT Report 4 of 4)	\$11.4M FTA Grant to replace aging infrastructure and enhance bus stops \$3M Land and Water Conservation Grant to reduce turf and asphalt, install green stormwater infrastructure, and plant over 300 trees at Jacobs Park. \$1.7M DOE Grant (Round 5) to support workforce development to improve implementation of energy conservation building codes in Arizona.	\$16.1M

* **Note** - Several corrections were made from previous quarterly reports to accurately reflect granting periods and final amounts.

Grant applications under review

City departments and programs have submitted several grant applications that are currently under review. While the City served as the lead applicant for most of these proposals, the EPA's Community Change Grant was submitted by our partners at the Primavera Foundation. Together, the proposed projects, including both lead and non-lead applications, total over **\$178.3 million**.

- **\$70.8M Bureau of Reclamation Lower Colorado Conservation Program** for the Advanced Water Purification Demonstration Project.
- **\$30M WRDA for Reclaimed Water System Southlands Loop.**
- **\$22.6M HUD PRICE Grant** to support the rehabilitation and replacement of manufactured housing, enhancing resilience, efficiency, and long-term affordability.
- **\$20M EPA Community Change Grant** with Primavera Foundation, including \$5M for City of Tucson projects.
- **\$20M WRDA 2024 for Santa Cruz River Heritage Project Phase 3.**
- **\$11.5M Federal Charging and Fueling Infrastructure Grant**, in partnership with Pima County, TEP, and TRICO, to install 80 EV charging stations in historically disadvantaged communities, with \$2.5M allocated to the City.
- **\$3M Bureau of Reclamation WaterSMART Grant** for AMI Phase 3.
- **\$368,353 USDA Composting and Food Waste Reduction Project** in partnership with Tucson Unified School District and Iskashitaa, expanding the City's FoodCycle at Home Program through education and community engagement in underserved areas and Title I schools

Grant applications not selected

When grants are not awarded, city departments typically seek alternative funding opportunities or resubmit the application the following year. For example, although the \$4M PROTECT grant was not selected, the \$11.4M from the FTA includes activities proposed in the PROTECT grant.

- **\$500M EPA Climate Pollution Reduction Grant**, including \$144M for City of Tucson projects.
- **\$15M RAISE Grant** for the Drexel Road Bridge project.
- **\$4M U.S. Department of Transportation PROTECT Grant** to enhance bus shelters.
- **\$3.6M SWIFR Grant** for organics recycling programs in Tucson.
- **\$1.2M SMART Grant** for the Traffic Signal Pre-emption for Public Safety Program.
- **\$720,000 WIFA Water Conservation Grant** (Round 5) for a GIS project at El Pueblo Center.

Grant applications under development

The City of Tucson is committed to making the most of unprecedented federal investments in climate initiatives to advance local sustainability efforts. With new funding opportunities available, staff across departments actively pursue these resources to benefit the community. To ensure these investments advance climate work across Tucson, the City is partnering with community-based organizations (CBOs) to reach and support residents effectively.

The Climate Action Team is preparing to apply for the "Solar for All" initiative to expand access to solar panels in low-income communities.

Community Outreach and Engagement

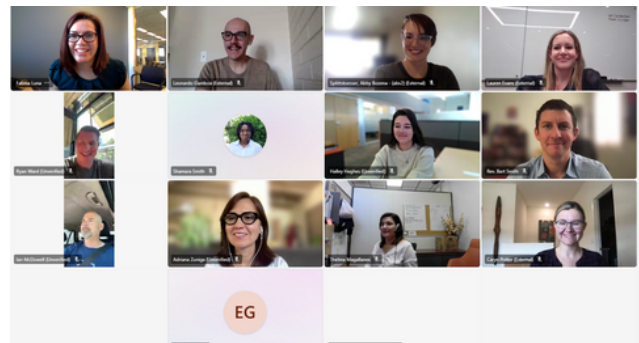
During the reporting period, community engagement efforts centered on advancing the City's newly adopted Heat Action Roadmap and coordinating heat preparedness and response efforts.

This summer, the **Heat Advisory Committee** was formed to guide the implementation of the **Heat Action Roadmap**. As a volunteer group, the Committee will align community needs with practical heat resilience strategies. Co-led by the Mayor's and Manager's Offices, the committee meets quarterly, with additional working groups as needed.



Thank you for helping us build heat resilience in Tucson

The Heat Advisory Committee is composed of a diverse group of professionals from various sectors, including academia, community organizations, government, and industry. Members bring expertise in areas such as urban planning, climate resilience, construction, public health, environmental advocacy, and community engagement. This broad representation ensures that the committee's efforts to implement the Heat Action Roadmap are informed by a wide range of perspectives, fostering collaboration and equity-focused solutions for heat resilience in Tucson.



Heat Advisory Committee Meeting

Throughout the summer, the City of Tucson actively participated in weekly calls organized by Pima County's Joint Heat Action Team (J-HAT), a multijurisdictional group focused on sharing resources and aligning heat preparedness strategies. This collaboration resulted in expanded cooling resources and infrastructure during the peak summer months.

HEAT RELIEF KITS



By the Numbers



915 KITS
DISTRIBUTED



3 KIT ASSEMBLING
EVENTS | 9 KIT
DISTRIBUTION EVENTS



117 UNIQUE
VOLUNTEERS | 211
VOLUNTEER HOURS



17 UNIQUE
LOCATIONS

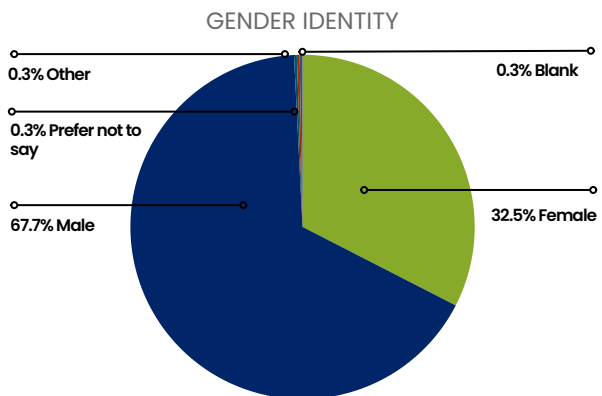
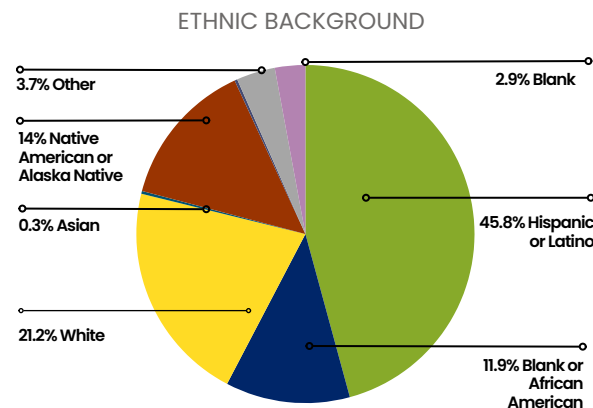
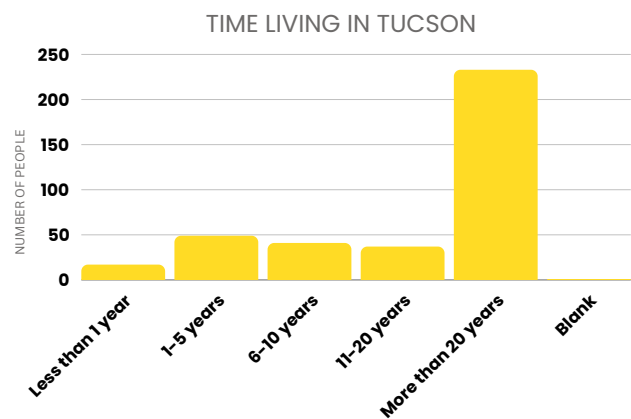
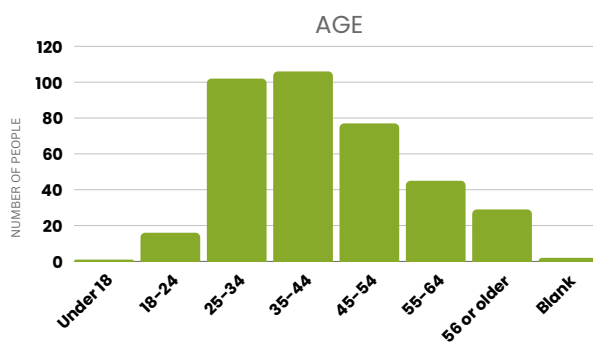
The Climate Action Team (CAT) led a pilot project to distribute **heat relief kits** to the most vulnerable members of the community. Partnering with the **Mayor's Office**, the **Community Safety, Health, and Wellness Program**, the **Housing First's Multidisciplinary Outreach Team (MDOT)**, and volunteers from the **Azara Branch** and faith-based groups, CAT assembled and **distributed over 900 heat relief kits between June and September**. This initiative generated significant community interest, with 117 volunteers contributing a total of 211 hours to the effort.

While the CAT purchased most supplies, the Pima County Health Department and the faith-based TEAM Choir provided additional supplies and informational materials, enabling the CAT to exceed its initial goal of distributing 800 kits.



Moreover, thanks to the support of many volunteers, we were able to gather valuable insights by asking unhoused kit recipients four simple survey questions. With nearly 400 responses, survey results indicated that most recipients were males of color, aged 25 to 44, who have lived in Tucson for 20 years or more.

Heat Relief Kit Recipients



Based on 378 surveys

In addition to distributing kits to the unhoused, **approximately 100 of the 900 kits were delivered to nine mobile home parks in collaboration with the Red Cross.** These parks were selected based on zip codes with the highest number of 911 heat-related calls. During a visit to one of the parks, we sadly learned that two community members had passed away during the July power outage, underscoring the urgent need for targeted outreach before triple-digit temperatures return next summer. All heat-related deaths are preventable, and our collective efforts must focus on reaching those most at risk.

Finally, members of the Climate Action Team (CAT) and the Mayor's Office were invited to present the City's heat resilience strategies at the quarterly assembly of the **Josefina Ahumada Worker Center (formerly the Southside Worker Center)**. The monolingual Spanish-speaking workers were particularly interested in the City's recently adopted heat protection ordinance. As a Tucson Resilient Together partner, the Center regularly invites CAT members to their quarterly assemblies.

Ordenanza de Protección contra el Calor para Contratistas de la Ciudad

Requisitos del Plan de Seguridad contra el Calor:



Disponibilidad de agua potable fresca de forma gratuita en lugares accesibles.



Prácticas de aclimatación efectivas para promover la adaptación fisiológica.



Capacidad para tomar descansos regulares y necesarios según sea necesario.



Capacitación sobre enfermedades y lesiones relacionadas con el calor



Acceso a áreas sombreadas y/o aire acondicionado.



Señalización laboral para identificar y reportar síntomas de calor, administrar primeros auxilios, contactar personal médico y reportar violaciones de calor a OSHA/ADOSH.



Acceso a aire acondicionado en vehículos con cabinas cerradas.



Proveer notificación escrita sobre nuevas protecciones laborales a todos los empleados, en su idioma preferido, y publicarla en el lugar de trabajo.

Ordenanza No. 12100

SECCIÓN 1. El Capítulo 28 se modifica añadiendo el Artículo XV como sigue:

Artículo XV. Requisitos Contractuales para la Mitigación de Enfermedades y Lesiones Relacionadas con el Calor en el Lugar de Trabajo

Sec. 28-160. Definiciones

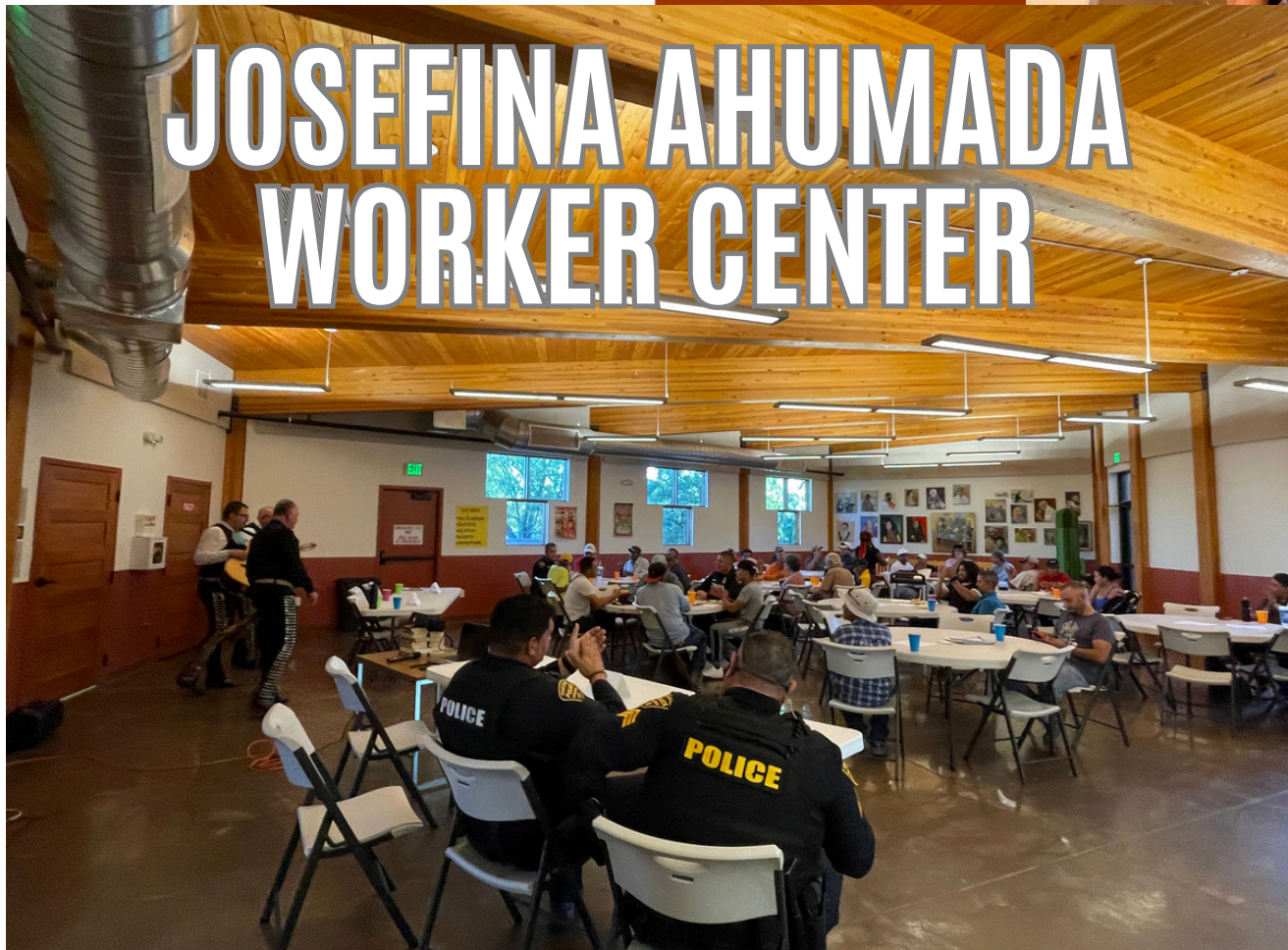
- Gobierno de la Ciudad
- Contratista de la Ciudad
- Entorno al aire libre

Sec. 28-161. Requisitos Contractuales

- Cláusula que requiere a los contratistas de la Ciudad tener un Plan de Seguridad contra el Calor

Sec. 28-162. Responsabilidad Administrativa

- Depts. incluyen Cláusula en contratos
- Depts. reportan incumplimiento al Director de adquisiciones
- Director notifica OSHA/ADOSH si no se corrige el incumplimiento
- Posible terminación del contrato por incumplimiento continuo.





Community Resilience

Actions to adapt and build resilience to the impacts of climate change, including the proliferation of resilience hubs and strategies to protect communities from extreme heat and other climate hazards.

Heat Action Roadmap

The summer of 2024 saw significant progress in the City's heat resilience efforts. This included the Mayor and Council's adoption of the now **award-winning Heat Action Roadmap**, along with worker protection provisions for city contractors through **Ordinance No. 12100**, and for city employees through Administrative Directive **A.D. 2.03-8**. As a result, all city departments and contractors are now required to have Heat Safety Plans.

The **City of Tucson's Risk Management Safety Team** offers a **Heat Stress Training** available online and in person to City employees. The training covers:

- **Overview of heat illnesses:** Heat exhaustion facts, differences between heat exhaustion and heat stroke.
- **Risk factors and body response:** Key risks and how the body manages heat.
- **Symptoms and warning signs:** Early indicators and types of heat stroke.
- **Emergency response:** First aid for heat exhaustion and heat stroke.
- **Long-term health risks:** Potential lasting damage.
- **Prevention strategies:** Staying cool, understanding the heat index, and prevention methods.
- **Workplace safety:** Recommended controls.
- **Additional resources**



Training link:

<https://www.youtube.com/watch?v=DzqyFUBZKfA>

The Heat Action Roadmap is **now available in Spanish**, thanks to Maria Mata, a University of Arizona RISE Intern hosted by Southwest Decision Resources (SDR) and the City of Tucson's Climate Action Team. As part of her internship with SDR, Maria also worked with the City's Plan Tucson team, supporting with planning meetings, data analysis, and strategy development.



MARIA MATA

Meet Maria

Maria began her journey with **Southwest Decision Resources** as an Earth Grant intern through the University of Arizona, where she contributed to projects benefiting the Tucson community. Her dedication led to a transition into the RISE internship program, where she now supports urban planning and climate adaptation initiatives. Originally from Hermosillo, Mexico, Maria is majoring in Sustainable Built Environments and Language, Literature, and Cultures at the University of Arizona.



Heat Season “Hot Wash”

The **Pima County Health Department** hosted a hot wash session at their Emergency Operations Center, bringing together key partners from various jurisdictions—including tribal partners, cooling center providers, emergency responders, city and county officials, as well as university and community partners—to reflect on the services provided during the 2024 heat season. The event highlighted collaborative efforts that kept residents safe, including cooling centers, heat awareness campaigns, and heat relief resources. The City’s Chief Resilience Officer (CRO) presented the City’s summer actions alongside Pima County officials and the State Heat Chief Officer from the Governor’s Office of Resilience. The session offered valuable insights and identified opportunities for improvement, such as targeted efforts around supporting manufactured homes, to better prepare for next year’s heat season.



Resilience Hubs

On August 20, 2024, the City of Tucson launched the FEMA-funded resilience hub planning project with partners including Pima County, the City of Tempe, The Nature Conservancy, CLIMAS, YWCA, SERI, Tucson Clean and Beautiful, Regeneration, Paisanos Unidos, and the Josefina Ahumada Worker Center (formerly known as the Southside Worker Center).

The project aims to boost community resilience by planning resilience hubs in vulnerable areas. It emphasizes partnerships, education, and leveraging existing social infrastructure, with activities like surveys, workshops, and a **Community Resilience Leadership Academy** focused on regional collaboration.

The Climate Action Team (CAT) is assisting the City’s Emergency Manager with the project implementation. CAT has drafted a **survey to assess the readiness of existing cooling centers to become resilience hubs**, which is currently under review and expected to be released in October, 2024. Additionally, we have completed the draft modules for the Community Resilience Leadership Academy, and we are on track to have a final curriculum for the academy in the 2024-2025 fiscal year.

Furthermore, the City of Tucson is exploring a potential partnership with Tucson Electric Power to establish the Donna Liggins Center as a Resilience Hub. This initiative stems from a Mayor and Council recommendation following the study of microgrids, positioning the center as a model for future resilience efforts in the community.

Cooling Infrastructure and Technology

The **Department of Parks and Recreation** is enhancing our public recreation spaces, making them cooler and more inviting for the Tucson community. Since 2023, through the Prop 407 bond project, the Parks and Recreation Department has installed cooling infrastructure across Tucson's parks, including:



NEW COOLING INFRASTRUCTURE IN CITY PARKS (2023-2024)



566
Shade
Trees



35
Drinking
Fountains



23
Shade
Structures



3
Splash
Pads

These improvements turn our public areas into climate refuges, providing relief to the Tucson community during the hot summer months.

Cool pavement

The City of Tucson's **Transportation and Mobility Department** (DTM) piloted PlusTi, a **cool pavement** product, on East Country Club Road, resulting in a 0.3°F reduction in ambient air temperatures. Following this, the program expanded to the Paseo Vista/Vista del Pueblo area to further evaluate the impact on sunlight reduction and heat absorption. A second round of cool pavement treatment using a Titanium Dioxide coating was completed during street resurfacing to reduce urban heat, create a cooler environment, and lower greenhouse gas emissions.

DTM is identifying additional neighborhoods with high heat stress for potential cool pavement treatments. The Westside and Sunset Villa neighborhoods have been prioritized due to their high heat vulnerability. Barrio Santa Cruz Lane was power washed and treated with ARA Ti+ in April and May 2024, and the same product was applied in Sunset Villa. In June 2024, **Brookhaven National Laboratories** conducted a 30-day environmental study in Tucson, including areas treated with ARA Ti+. This research is being done in collaboration with **Dr. Kristina Currans from the University of Arizona's College of Architecture, Planning, and Landscape Architecture (CAPLA)**.

Shaded Bus Stops

City of Tucson Receives \$11.38 M to Improve Transit



#busmonth



U.S. Department of Transportation
Federal Transit Administration



CITY OF
TUCSON

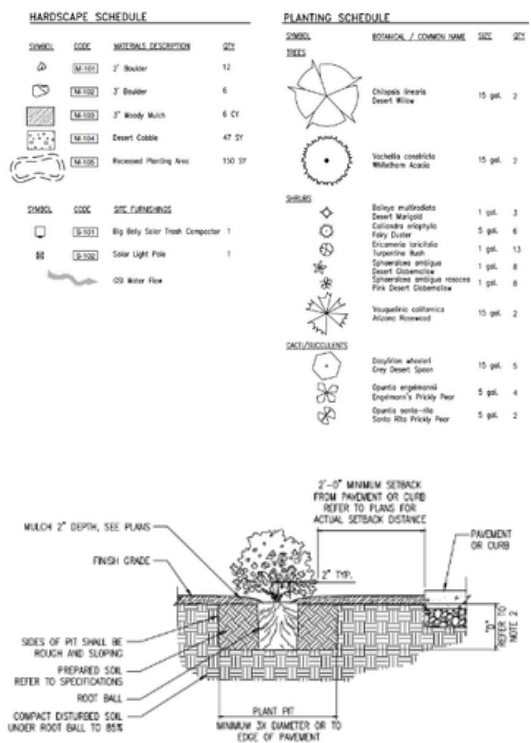
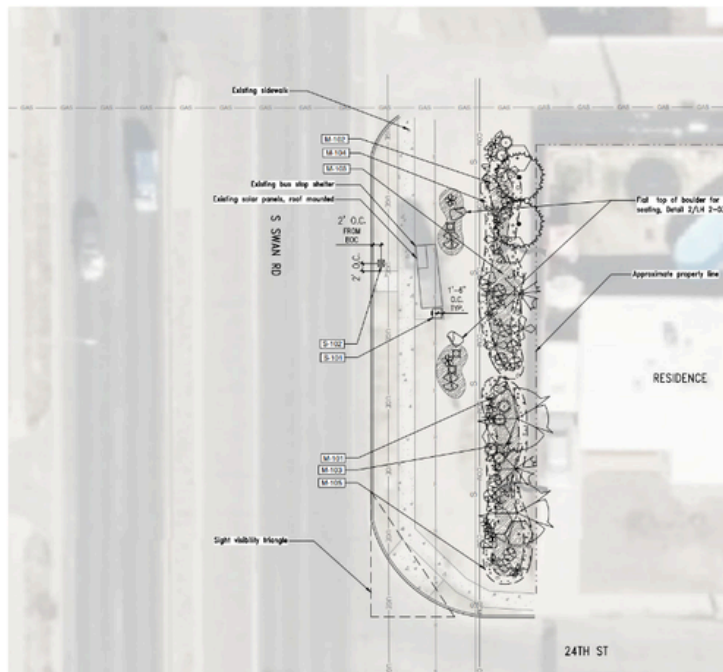
INVESTING IN
AMERICA

In July 2024, The City of Tucson's **Department of Transportation and Mobility (DTM)** and **Sun Tran** received an **\$11.38 million Federal Transit Administration (FTA)** grant, aimed at **enhancing Sun Tran bus stops** across the city. A preliminary list of bus stops has been identified based on their current lack of shelter, availability of public right-of-way, and priority scores that factor in equity considerations and proximity to key destinations. This grant will enable the addition of shelters at 80 bus stops, incorporating shade and green stormwater infrastructure (GSI) elements to provide much-needed cooling benefits for transit riders. Along with these upgrades, the grant will support the replacement of two bus maintenance lifts to improve service reliability and new, more accessible signage at all stops.

City of Tucson secures federal funding to increase shade along Tucson transportation corridors.

Starting in Spring 2024, the **Climate Action Team** has collaborated with the **DTM** and **Sun Tran** and **Wheat Design Consulting** to develop a pilot designs for **Cool Bus Stop** that incorporate green infrastructure and other cooling features to enhance and green transit corridors. The pilot designs are slated to be completed in October 2024, with construction targeted for late Fall 2024. These designs will serve as the foundation for future bus stops enhancements.

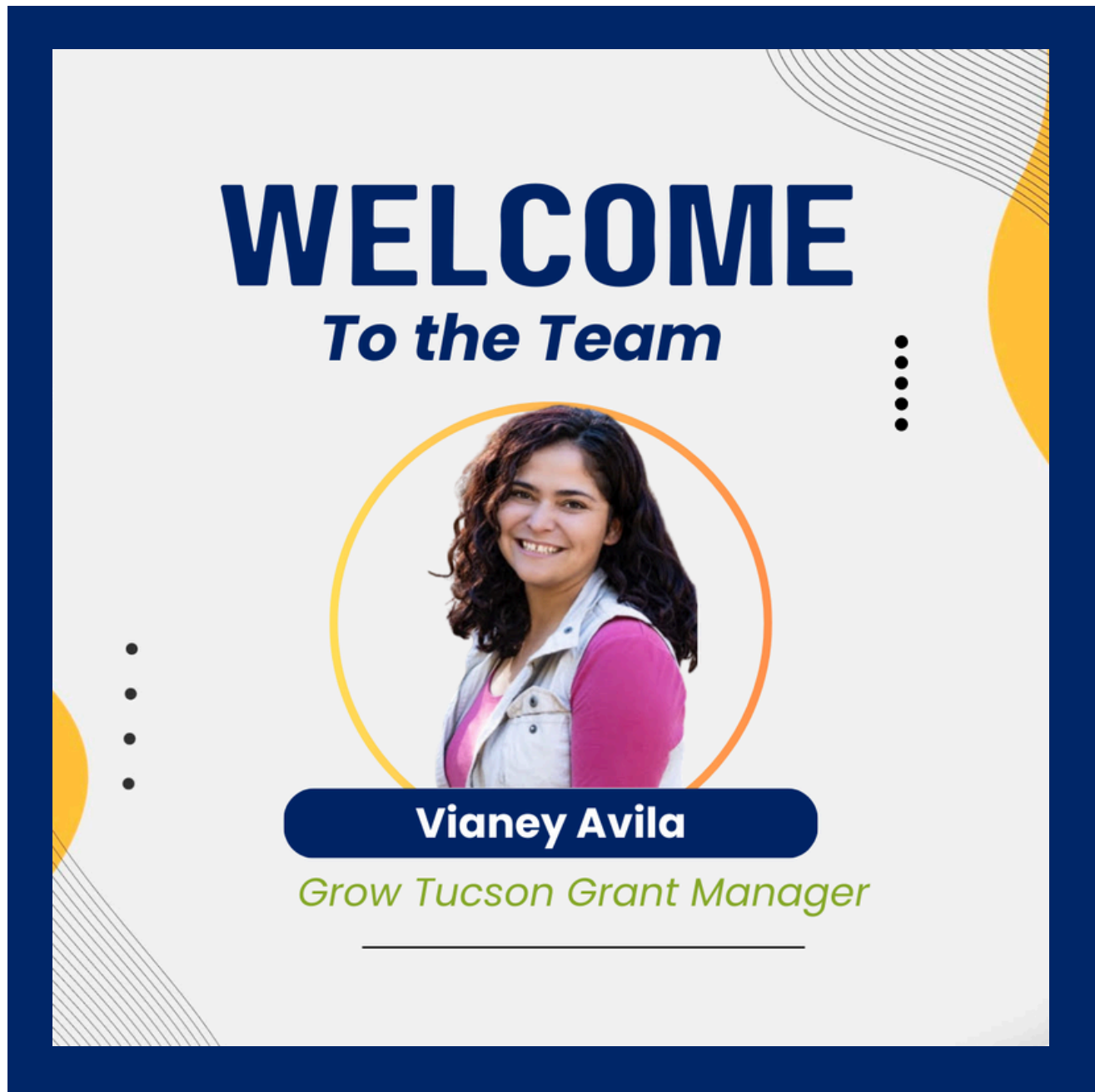
SOUTH SWAN RD. AND EAST 24TH ST. (NE CORNER)



The Urban Forestry Program and Tucson Million Trees

Exciting news!

We're excited to announce that **Vianey Avila** has joined the **Urban Forestry Team** as the **Grow Tucson Grant Manager**, bringing valuable expertise to help us achieve our ambitious goals and further our commitment to sustainability and environmental stewardship.



The Urban Forestry Program and Tucson Million Trees

With record breaking heat and intense storms, the pressures of climate change mean that growing our urban green spaces and protecting our existing canopy continue to be of the highest priority.

The Urban Forestry Program is turning four this fall and we have made significant advances since the creation of the program by Mayor and Council in 2020.

- Every Tucsonan can help grow our cool green spaces – Tucson has its first **Community Forest Action Plan** that guides the Urban Forestry Program and outlines how everyone can get involved.
- Trees are living infrastructure that require investment and care – **The City of Tucson Tree Standards and Best Practices** details the planting, protection, maintenance, and removal of all city trees. Look for a 2024 update coming soon!
- Since Mayor Romero planted the first tree of the **Tucson Million Tree initiative** in 2020, we have planted **over 120,000 trees across the City** in partnership with community organizations with the support of hundreds of volunteers! Join a community planting event and learn more at **Tucson Clean and Beautiful**.
- Advancing CR-3.2, the City has completed its **first Tree Inventory** – gathering critical health and baseline information on all trees on public property. Staff will now begin integrating this data with our department asset management systems. We will shortly be able to track all work completed against individual tree assets and watch our urban canopy grow live with each tree planted.
- Implementation of the **\$5 million dollar USDA Forest Service grant Grow Tucson has begun!** The Urban Forestry Program welcomes **Vianey Avila** to the team as the **Grant Manager** for this exciting neighborhood scale urban forestry project. Grow Tucson kicked off this fall 2024 and continue for five years, aiming to develop a sustainable canopy in Tucson's highest-need neighborhoods. The project partners with community organizations including Tucson Clean and Beautiful, Watershed Management Group, Tucson Audubon Society, Sonora Environmental Research Institute, and the Iskashitaa Refugee Network.



As we enter the 5th year of the Urban Forestry Program watch for exciting new ways to get involved with the Urban Forestry Program.

2025 YEAR OF THE TREE STARTS IN THE NEW YEAR!



Energy

Actions to reduce emissions from energy used by City operations and the community at large, inclusive of actions to decarbonize the grid and integrate renewable energy.

Energy Efficiency at City Buildings

The **Environmental and General Services Department** (EGSD) has been working to enhance energy efficiency in City buildings through various initiatives.

The **Energy Office** is registering 250 City-owned buildings in **EnergyStar**. Due to the outdoor work required for meter verification and landscape irrigation, activities for this project have been temporarily paused for this quarter and will resume in November. Currently, 20% of facilities are complete, with another 20% scheduled for completion in Fiscal Year 2025.

Using nearly **\$500,000** from climate resilience funds, EGSD has **replaced windows** at three of the four main buildings at Randolph Park, improving comfort and building envelope security. Savings estimates will be provided in upcoming reports.

Additionally, with around **\$300,000** from climate resilience funding, EGSD has integrated seven City buildings into the **Energy Management Control system**. These upgrades enhance energy efficiency, streamline control and scheduling, and reduce unnecessary wear and tear on HVAC equipment while significantly improving occupant comfort.

Energy Sourcing Study

GDS Associates, Inc. has been contracted to conduct an **Energy Sourcing Study** for the City. The project focuses on four main areas:

- Evaluating the potential for municipalizing energy distribution for the City.
- Analyzing options for Community Choice Aggregation.
- Exploring Solar Service Agreements (SSAs) or Virtual Power Purchase Agreements (VPPAs) to meet the City's renewable energy goals.
- Conducting a high-level analysis of microgrid options for the City.

A **presentation** has been scheduled for October's **Commission on Climate Energy and Sustainability** meeting to share the scope of work and timeline.



Solar Energy at City Buildings

The City is working towards its goal of installing **30 MW of solar** photovoltaics (PVs) on City-owned buildings and carports. So far, **72 solar projects** have been completed, generating **18.45 MW** of clean energy across City facilities. Solar energy offers many benefits, including reduced greenhouse gas emissions, lower energy costs, and increased energy independence. Currently, an additional project under construction will add **8.6 MW** of capacity, while four more projects in the final contracting phase will contribute **1.1 MW**. These **projects will bring the City's solar production to 28.15 MW, leaving 1.85 MW to reach the goal**. With continued efforts, the City is on track to meet its target, further enhancing sustainability and resilience.

Solar Empowerment Program

The **Housing and Community Development Department (HCD)** and the Climate Action Team (CAT) are using **\$900,000** in climate resilience funding, allocated by the Mayor and Council, to support **solar panel installations in low-income households**. The funding is distributed as follows:

- **\$400,000** to the **Sonora Environmental Research Institute (SERI)** to install and promote solar panels in low-income homes. SERI has completed Solar installation on 11 low-income homes with the goal to complete over 30 more homes in the next two years.
- **\$300,000** to HCD for solar panel installations in city-owned public housing units. HCD has completed the procurement process and has established a contract with TFS to install around 20 solar systems on HCD owned single family homes. Installation is to begin in November 2024
- **\$100,000** to **Technicians for Sustainability (TFS)** for solar installations in low-income homes. These funds have been deposited into the Credit Union to establish a loan loss reserve which provides lower interest rates and better terms for low-income homeowner solar loans.
- **\$100,000** to establish a City-operated Solar Empowerment Program.

Following an open search, the City selected **Solar United Neighbors (SUN)** to develop a **city-operated Solar Empowerment Program** in alignment with the Solar for All initiative. SUN's responsibilities include:

- Assessing the local solar market
- Reviewing regulatory compliance
- Proposing eligibility criteria, program approach, and incentives
- Conducting financial analysis
- Engaging the community and stakeholders
- Monitoring and evaluation

The program aims to leverage **Solar for All** funding to expand solar access for low-income households in the region.

Climate-Adapted Building Codes

The **\$3.5 million Resilient and Efficient Code Implementation (RECI) grant**, awarded by the Department of Energy (DOE), supports a partnership among the New Buildings Institute (NBI), local governments, state agencies, researchers, industry, and community-based organizations, collectively known as the **Resilient Southwest Building Code Collaborative**. The grant aims to develop **climate-adapted building codes** for the Southwest that ensure highly energy-efficient new construction while maintaining affordability. A **Steering Committee** oversees the project, while a **Technical Advisory Group** and an **Equity Accountability Panel** provide guidance on creating a regional resilience code and related tools. Both groups will begin their meetings in October 2024. Additionally, a **\$1.7 million RECI grant** was awarded to the City of Tucson and education partners to expand **workforce development programs**, improving understanding and compliance with advanced energy and resilience codes.



Transportation and Land Use

Actions to shift transportation to low- or zero-emission modes, including land use changes to promote density and transit-oriented development as well as fleet electrification.

Corridor Redevelopment Project

The **Planning and Development Services Department (PDSD)** is leading the **Corridor Redevelopment Project** to revitalize underutilized sites along Tucson's commercial corridors. This initiative aims to transform vacant lots, deserted strip malls, and large, empty parking areas into vibrant, mixed-use developments that enhance livability.

Project Goals:

- Make infill development, especially affordable housing, simpler to build along corridors
- Remove barriers to affordable housing
- Promote transit-oriented infill development that supports climate action goals
- Update zoning to make it easier to permit a full spectrum of housing types
- Simplify redevelopment of underutilized and vacant sites



For more information, visit the project website:
<https://corridor-redevelopment-tools-cotgis.hub.arcgis.com/>

Biking Programs

The **Department of Transportation and Mobility (DTM)** will continue to fund **Safe Routes to School** programming through FY 2024-2025 using **Highway User Revenue Funds (HURF)**. Additionally, the City of Tucson, in partnership with the Pima County Health Department and the Pima County Department of Transportation, has applied for a **USDOT Safe Streets and Roads for All (SS4A) Planning & Demonstration Grant** in Fall 2024. If awarded, the grant will support Safe Routes to School programming and quick-build safety demonstrations near schools, aimed at testing and evaluating safety strategies over a five-year period.

Furthermore, in May 2024, the City of Tucson was awarded a 2-year, **\$200,000** grant from the **Better Bike Share Partnership** to join the **Living Lab Cohort**. Through this initiative, Tucson will collaborate with peer cities to assess and more equitably distribute existing bike share stations and assets. The process will be community-led and community-informed, focusing on increasing bike share ridership in transportation-vulnerable communities.

Electric Vehicles

The City of Tucson is working to decarbonize and electrify its fleet in alignment with the Mayor and Council's climate goals. Currently, **50 electric light-duty vehicles** are in service, with **20** more to be added this year. While the City aims to transition to low or no-emission vehicles, challenges like supply issues or specific vehicle needs sometimes require exemptions, as outlined in the **Green Fleet Transition Plan**. To date, 133 waivers have been approved for departments including Tucson Police, Tucson Water, and Housing and Community Development.

Beyond light-duty vehicles, the City is also transitioning **heavy-duty vehicles**. The **Department of Transportation and Mobility (DTM)** and **Sun Tran** have integrated 10 electric buses, with 10 more pending. The **Environmental and General Services Department (EGSD)** has purchased **one electric side-loader refuse truck**, expected to enter service in Fiscal Year 2025.

Charging Infrastructure



Proper charging infrastructure remains a challenge nationwide. The City is actively pursuing funding to expand EV charging capabilities. Recently, the City, in partnership with Pima County, TEP, and TRICO, applied for an **\$11.5 million Federal Charging and Fueling Infrastructure Grant**, which would support 80 charging stations in historically disadvantaged areas, including **\$2.5 million** for the City.

Additionally, with **\$485,000** in climate resilience funds, EGSD has deployed **5 solar-powered, grid-independent chargers**, positioned at key city locations. A trailer to move these chargers is expected to arrive in the second quarter of Fiscal Year 2025.



**Climate Resilience
Funding Boosts EV
Transition and
Infrastructure**



Resource Recovery and Management

Actions to reduce emissions from resource use and disposal, including shifts to zero waste, piloting technologies and actions that support a circular economy, and expanding green infrastructure.

Zero waste initiatives

The City of Tucson's **Environmental and General Services Department (EGSD)** is advancing the **Zero Waste Roadmap** to reduce the volume of waste going to landfills. A key part of this effort is the "**Zero Waste Tucson**" event on **November 2**, a community-driven movement that promotes sustainable consumption and production practices. The event aims to raise awareness about zero-waste initiatives, helping to create a cleaner Tucson. By adopting effective waste management practices, residents can reduce pollution and help mitigate climate change impacts.

Additionally, EGSD will host **Household Hazardous Waste Collection** events on **November 9** and **December 14**, offering residents a safe way to dispose of hazardous materials. These events support Tucson's commitment to sustainability and environmental resilience.

As a city, we can set an example through initiatives like sustainable procurement policies. Moving forward, the Climate Action Team will focus on drafting a **Sustainable Procurement Policy** in partnership with the Procurement Department, other city departments, and the Mayor and Council. This effort aims to further integrate sustainability into Tucson's operations and advance the **Tucson Resilient Together** action "**RR-3: Develop a Sustainable Procurement Policy for City Operations**".

NEXT STEPS

As we move forward, the City of Tucson will continue implementing the Tucson Resilient Together (TRT) plan and the recently adopted Heat Action Roadmap. In our **last quarterly report**, we committed to advancing several actions, which we are pleased to report as completed:



Distribute heat relief kits



Translate Heat Action Roadmap



Host Climate Stakeholder Conversation



Hire Community Relations Coordinator

Looking ahead, our priorities include implementing the **FEMA grant**, drafting a **sustainable procurement policy**, fully transitioning city departments' **gas-powered tools to electric**, coordinating the **2025 Southern Arizona Heat Summit**, developing the Tucson Resilient Together **dashboard** with key performance indicators, and pursuing **climate funding opportunities**.

RESOURCES



The adopted **Tucson Resilient Together** (TRT) plan is available in English and Spanish on the city's **Climate Action Hub** at <https://climateaction.tucsonaz.gov/>



The TRT Implementation Strategy for Fiscal Year 2024 is available [HERE](#)



2023 Report 1 of 2 - TRT Implementation Update (covering April-June 2023) is available [HERE](#)



2023 Report 2 of 2 - TRT Implementation Update (covering July- September 2023) is available [HERE](#)



2024 Report 1 of 4 - TRT Implementation Update (covering Oct- December 2023) is available [HERE](#)



2024 Report 2 of 4 - TRT Implementation Update (covering January- March 2024) is available [HERE](#)



2024 Report 3 of 4 - TRT Implementation Update (covering April - June 2024) is available [HERE](#)

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ACKNOWLEDGEMENTS

The Climate Action Team would like to express our sincere gratitude to all individuals who contributed to the completion of this report. Special thanks to city departments and community partners for their invaluable insights and support. Their dedication and expertise continue to play a crucial role in advancing the City's climate goals.

We thank you for your continued support in our efforts to create a climate resilient and thriving Tucson.

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