CENTER FOR CLIMATE AND ENERGY SOLUTIONS

RESILIENCE SOLUTIONS

Texas Resolve: A Regional Action Roadmap for Extreme Heat, Wildfire, and Flooding

From the South Central Texas Accelerator

November 2026



SUMMARY

Texas Resolve: A Regional Action Roadmap for Extreme Heat, Wildfire, and Flooding was designed to help communities, businesses, and governments across South Central Texas build resilience to increasingly severe extreme weather events. This Roadmap reflects the expertise and priorities from leaders representing over 65 organizations that partnered in C2ES's Climate Resilient Communities Accelerator, a two-year program that convenes cross-sector partners to address shared hazards and advance high-impact resilience strategies. Together, leaders from government, the private sector, nonprofits, and academia identified five key action areas spanning regional planning and governance, cross-sector preparedness and communications, disaster-ready homes, energy resilience, and nature-based solutions. These priorities will strengthen infrastructure reliability, business continuity, and public safety while providing a foundation for more coordinated regional resilience efforts in the years ahead.

HIGHLIGHTS

The Austin–San Antonio corridor is one of the fastest-growing regions in the country. As growth expands into areas exposed to extreme heat, wildfire, and flooding, resilience must be integrated into decisions about housing, infrastructure, and economic development to ensure long-term prosperity.

Extreme heat, wildfire, and flooding are increasing risks to public health, infrastructure, and economic competitiveness. These hazards threaten worker safety, business continuity, energy reliability, housing, and water resources. Their impacts often compound, creating challenges that cross jurisdictional boundaries and affect the entire region.

Resilience should be measured by continuity, not just recovery. Participants envisioned a future in which residents remain safe, businesses remain open, and infrastructure remains reliable despite increasingly severe weather. Building resilience means reducing disruptions before disasters occur and ensuring that communities can continue to thrive during and after extreme events.

Resilience investments can strengthen both communities and the regional economy. Participants identified opportunities to strengthen business continuity, protect workers, improve infrastructure, support insurance affordability, attract investment, and create markets for resilience solutions.

South Central Texas has the leadership, models, and momentum needed to build resilience. Across the region, local governments, businesses, utilities, universities, nonprofits, and community organizations are already advancing innovative solutions to extreme heat, wildfire, and flooding. The opportunity now is to connect, scale, and replicate successful models through stronger collaboration, public-private partnerships, and coordinated regional action.

Texas Resolve: A Regional Action Roadmap for Extreme Heat, Wildfire, and Flooding

From the South Central Texas Accelerator

Authors

Sam Horowitz
Libby Zemaitis

Center for Climate and Energy Solutions

Acknowledgements

C2ES would like to thank the 75+ South Central Texas local governments, businesses, communities, and organizations who participated in scoping calls, in-person convenings, and virtual meetings through the Accelerator in 2026. We would also like to thank the speakers and panelists at the Resilient Economies Roundtable in San Antonio and the Resources Connector Forum in Austin, and all the participants who reviewed and provided input on drafts of this Roadmap, for their time, expertise, and unique perspectives. C2ES also thanks ICF International and Kristen McConnell for their support through research, planning, facilitation, and writing.

C2ES launched the Climate Resilient Communities Accelerator in Texas thanks to the generous support of the Bank of America Charitable Foundation, the CO2 Foundation, and the Laural Foundation.

Executive Summary

South Central Texas is experiencing rapid population and economic expansion, making it one of the fastest-growing regions in the country. This growth is occurring alongside more frequent and intense extreme weather hazards, putting people, infrastructure, businesses, and communities at risk. Extreme heat, wildfire, and flooding, like the deadly July 4, 2025, floods that impacted the Hill Country, do not respect jurisdictional boundaries, making coordination difficult and exposing capacity gaps among urban, suburban, and rural communities. And while communities across the region have developed innovative initiatives to mitigate risk, these efforts are often under-resourced and fragmented.

In 2025, the Center for Climate and Energy Solutions (C2ES) launched the *South Central Texas Climate Resilient Communities Accelerator* (the Accelerator) to address these challenges and strengthen regional resilience to extreme heat, wildfire, and flooding through cross-sector collaboration. This Roadmap was developed in collaboration with local leaders across the region through ongoing engagement and action-oriented convenings.

Together, cross-sector leaders outlined a future vision for South Central Texas where growth is paired with reliable infrastructure, connected communities, a protected workforce, accessible insurance, and success measured by continuity, not just recovery. This Roadmap represents the culmination of the first year of a two-year collaboration and showcases the shared priorities regional leaders—from the private, public, nonprofit, and academic sectors—seek to advance in the Accelerator's second year.

5 key action areas were identified by regional leaders to catalyze resilience:

- **effective regionwide planning and governance**
- **coordinated cross-sector disaster preparedness and communication**
- **safe, efficient, and disaster-ready homes**
- **reliable critical infrastructure and services**
- **multibenefit nature-based solutions.**

These key action areas contain eight priority strategies developed by the cohort, each with implementation steps and an emphasis on cross-sector, regional-scale collaboration. **Recurring themes of the strategies include understanding the importance of public-private partnerships, building the business case for resilience, utilizing trusted local messengers, leveraging existing regional models, and addressing the needs of small and rural communities.**

South Central Texas has the leadership, models, and momentum needed to build a safe and prosperous future. The work required now is to scale and connect these strengths to maximize regional impact. Now, in the second year of the Accelerator, the program will shift from coordination to activation, with local leaders selecting one or more of the roadmap's priority strategies to begin implementing. The Accelerator also seeks to support regional partners in carrying additional strategies forward on the ground and through an emerging national Accelerator network.

Contents

Executive Summary 3

Resilience in South Central Texas: The Opportunity and the Stakes 5

Existing Local Initiatives Provide a Foundation for Regional Scale 7

Building a Foundation for Action 9

Scoping Local Resilience Efforts and Regionwide Needs 9

Selecting Our Focus Hazards: Heat, Wildfire, and Flooding..... 10

Building the Accelerator Cohort..... 12

Convening to Chart a Path Forward 13

Pathways to Action 15

Cross-Cutting Themes for Greater Impact 15

Key Action Areas and Priority Strategies..... 16

- Effective Regionwide Planning and Governance 17
- Coordinated Cross-Sector Disaster Preparedness and Communication.....20
- Safe, Efficient, and Disaster-Ready Homes..... 27
- Reliable Critical Infrastructure and Services 32
- Multibenefit Nature-based Solutions..... 35

Implementing the Roadmap 38

Resources for Resilience.....38

Messaging Resilience.....42

Charting a Path Forward..... 44

Appendix A: Participating Organizations 45

Appendix B: Snapshot of Select Funding Programs 47

Endnotes.....50

Resilience in South Central Texas: The Opportunity and the Stakes

The Interstate 35 corridor between Austin and San Antonio is one of the fastest growing regions in the country.[1] Spanning Bastrop, Bexar, Caldwell, Comal, Guadalupe, Hays, Travis, and Williamson counties, this area—the South Central Texas region—is home to more than 5 million people and is projected to grow to over 8 million by 2050.[2] The region is an economic powerhouse, home to regional and global innovators that span tech, manufacturing, health care, defense, transportation, professional services, and more. Multiple natural ecosystems intersect in South Central Texas, like the rocky limestone hills and natural springs of the Edwards Plateau, the fertile soils of the Blackland Prairie, and the rolling forests of the Piney Woods.

Communities are a vibrant mix of urban, suburban, and rural, including the urban centers of Austin and San Antonio, peri-urban communities like Kyle and Pflugerville, midsized communities like San Marcos and New Braunfels, and rural towns across the eight-county region. The region's rapid population growth and development over the past decade has been especially notable in the non-urban centers. Since 2020, the population in Hays County has grown by almost 20 percent, while cities like New Braunfels and Kyle have grown by 35 percent to 40 percent.[3]

The central question is not whether South Central Texas will continue to grow, but how it will grow—and whether new homes, infrastructure, businesses, and public systems are built in ways that reduce risk, protect natural assets, and strengthen long-term economic prosperity.

Population growth and development are not the only changes that South Central Texas is experiencing. While the region has always faced extreme weather—Hill Country in particular has long been known as "flash flood alley"—extreme weather events have increased in frequency and intensity in recent years, especially as the region's developed footprint has expanded into risk areas such as the wildland urban interface.[4]

Within a single calendar year, residents across the region experience multiple hazardous weather events, including extreme heat and cold, flooding, winter storms, wildfire, drought, and severe convective storms. **These hazards, combined with rapid population growth, are shaping how the region grows, works, and lives, straining infrastructure, public health systems, ecosystems, and the regional economy, particularly for vulnerable residents, such as low-income households, older adults, people with disabilities, and others who face greater barriers to preparing for and recovering from hazard impacts.**

Community leaders have highlighted pressing risks and impacts resulting from these growing hazards, including threats to public health, disparities in access to emergency warnings and safe structures during events, availability and affordability of insurance, and threats to the stability of the energy grid. The region's businesses face additional continuity threats from related workforce disruptions, financial losses, rising insurance costs, and supply chain instability. For small businesses especially, these impacts can be existential—40 percent of small businesses never reopen after a disaster.[5]

Box 1: A Snapshot of Extreme Weather Impacts

Flooding: The 2025 Hill Country floods resulted in 137 deaths, billions of dollars in damages, increases to unemployment rates, and decreases in tourism.[6]

Extreme Heat: Between May and October 2026, more than 1,000 people have gone to the emergency room for heat-related illnesses in the Austin metropolitan region.[7]

Wildfire: Texas carries the greatest risk of wildfire in the United States outside of California, with much of that risk concentrated in South Central Texas.[8]

(See additional detail on how extreme weather affects this region on 10 of this report.)

In a region defined by entrepreneurship and rapid growth, resilience should not be treated solely as a public-sector responsibility, but also as a market opportunity: Businesses that reduce risk, protect workers, and deliver practical resilience solutions can help the region grow more safely while strengthening long-term competitiveness.

The Accelerator uncovered the following strategic approaches to exponentially scale multisector resilience solutions and impact across the region:

- **Private-sector engagement and market development:** Businesses and corporations in the region have a strong interest in managing local risks to business continuity, workforce health, asset value, supply chains, and insurance costs. They also bring capacity to innovate, invest, and move resilience solutions to market—from cooling technologies, distributed energy, resilient construction, and water management to risk analytics, emergency communications, and supply-chain continuity planning. Better engagement with business leaders can help translate community resilience needs into investable projects, scalable products and services, and public-private partnerships that deliver both public benefits and private value.
- **Expanded collaboration with higher education:** South Central Texas is home to many higher education institutions with both talented researchers and committed students who can provide more communities and companies with data and tools to understand the impacts of extreme weather and the efficacy of solutions.
- **Cross-jurisdictional collaboration:** Political boundaries create unnecessary barriers: resilience actions deployed in one community or county are often not shared or coordinated with neighboring jurisdictions that experience the same hazards. Expanding the aperture of resilience can spread good ideas and avoid duplication of efforts or maladaptation across the region.
- **Communications coordination:** Existing communications efforts to provide warnings about imminent hazards, share resources, or build awareness of risks and longer-term preparedness actions are geographically fragmented and rarely integrate multiple hazards. There is significant opportunity to eliminate redundancy and confusion through alignment, to strengthen the power of the message through trusted messengers and neighbor-to-neighbor networks, and to integrate new technologies to make communication more effective and efficient.

Existing Local Initiatives Provide a Foundation for Regional Scale

Texans have long met big challenges with practicality, grit, and a strong tradition of neighbors helping neighbors. Across South Central Texas, that spirit is already visible in local governments, businesses, universities, faith communities, nonprofits, and residents working to reduce risk and protect what makes the region thrive. Many promising initiatives are already emerging in communities big and small **(**see **Box 2)**. However, these efforts, which are largely led by governments, public universities, and community-based organizations, are often siloed and hampered by limited funds, constraining their collective impact and highlighting the need for stronger collaboration, coordination, creative financing, and information sharing.

Box 2: Examples of Local Resilience Initiatives that Inspire Region-Wide Solutions

Efforts like these across the region demonstrate that South Central Texas already has practical models to build on; the regional opportunity is to connect, adapt, and scale them across jurisdictions and sectors.

The ***San Antonio Climate Ready Neighborhoods*** is network of community partners linking resilience trainings, resources, and funding through a network of trusted community groups and spaces.

The ***Bandera Electric Cooperative Smart Battery Storage Program*** is a program to lease and manage energy storage systems for members, allowing them to maintain power during weather-related emergencies while also contributing to a stronger, more reliable Texas energy grid.

The ***Hill Country Alliance Guide for HOAs*** offers model homeowner's association guidelines to encourage water conservation, native landscapes, and other actions that build resilience against drought and heat.

The ***Austin Disaster Relief Network*** is a trained network of churches offering support to disaster survivors to meet short and long-term needs.

The ***H-E-B Disaster Response*** is a corporate initiative that mobilizes mobile kitchens, support fleet, direct aid, rapid supply chain routing, and more to assist communities affected by a natural disaster.

The ***BeforeDuringAfter*** is a coalition led by Texas State University to help small businesses in Texas prepare for, respond to, and recover from natural disasters and other unpredictable incidents.

The ***Resilient Austin Playbook*** provides a strategic roadmap for coordinated action to strengthen community resilience, enhance critical infrastructure, and expand economic opportunity in the face of growing extreme weather, affordability, and infrastructure challenges.

The ***San Marcos Land Development Code (LDC) Update*** is a 2026 update with significant focus on stormwater regulations and incentives, cluster and conservation development, and landscaping and tree mitigation to mitigate localized heat and flooding impacts.

The ***Planet Texas 2050*** is a University of Texas at Austin initiative to advance interdisciplinary research on resilience and to codesign adaptative strategies with stakeholders and frontline communities in Texas.

The ***Pflugerville Fire FLAME Initiative*** is a proactive wildfire mitigation program that brings housing, design, landscaping, and emergency services leaders together to reduce wildfire risk.

The ***Reforestation and Restoration by TreeFolks*** is a tree-planting initiatives to restore flood-damaged creek and river corridors, and use tree equity scores and community maps to plant trees to mitigate urban heat islands.

Despite examples of strong local leadership and innovation, regional resilience efforts remain fragmented and underfunded as disasters grow more frequent and costly, outpacing state and federal budget resources.

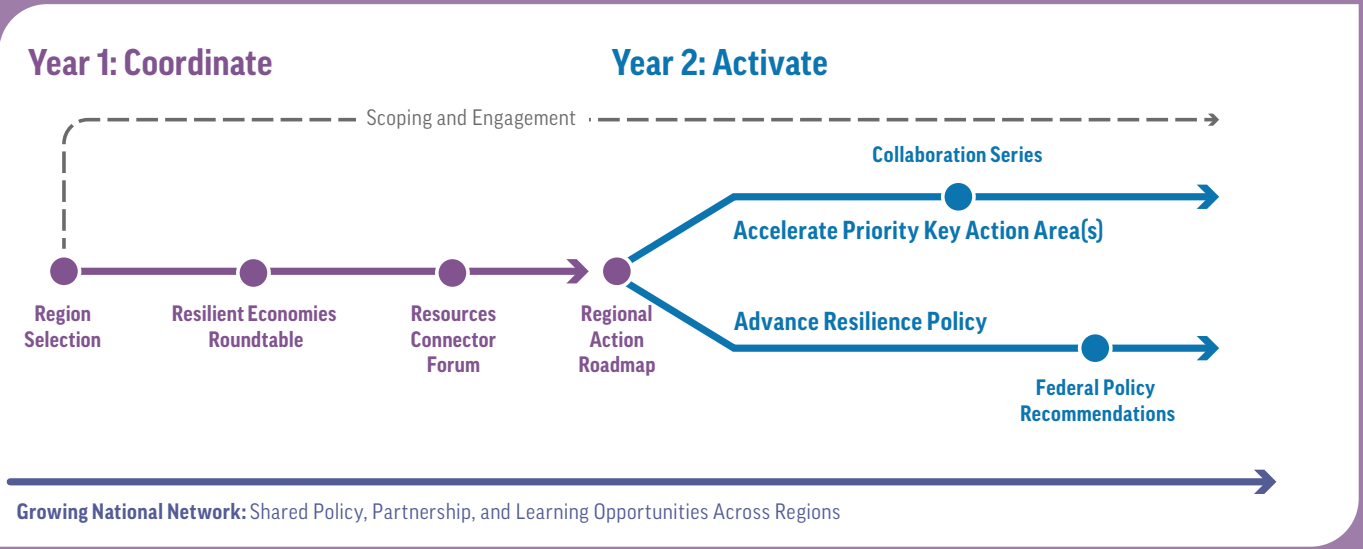
The *South Central Climate Resilient Communities Accelerator* was launched in 2025 to complement existing resilience initiatives and advance effective solutions at a regional scale by aligning stakeholders, surfacing scalable high-impact resilience solutions, supporting cross-sector engagement and collaboration, and cultivating new financing mechanisms like public-private partnerships. **In this Roadmap, we chart a course toward resilience that focuses on the practical work of keeping people safe, businesses open, infrastructure reliable, homes insurable, water available, and communities connected before, during, and after extreme weather events.**

Box 3: Background on the Climate Resilient Communities Accelerator

C2ES launched the ***Climate Resilient Communities Accelerator*** in 2023 to facilitate regional cross-sector coordination, uncover multihazard strategies, and elevate local needs to national policy efforts. Communities and organizations across South Central Texas invited the Accelerator to coordinate and catalyze regional resilience action.

The Accelerator provides two years of flexible support and convenings to enable local leaders to share learnings, align efforts, and design and advance innovative solutions that protect communities, businesses, and local economies. The Accelerator's multiyear framework coordinates and activates a cross-sector cohort around shared risks and collaborative solutions (see **Figure 1**).

FIGURE 1: ACCELERATOR PROCESS TIMELINE



After the initial two-year regional effort, each Accelerator cohort joins a growing national network as the initiative expands into new regions across the United States, collaborating on emerging opportunities to share learnings, develop new partnerships, and improve national policy.

The program was piloted in 2023–24 in ***Colorado's North Front Range,*** developing a regional roadmap for wildfire and heat and advancing a network of resilience hubs and microgrids. In 2025, C2ES launched the second Accelerator in ***Washington's South-Central Puget Sound***, now advancing regional disaster communications for heat and wildfire smoke.

Building a Foundation for Action: Year 1 of the South Central Texas Accelerator

South Central Texas is well positioned to demonstrate a Texas model of resilience—one that is locally led, business-engaged, infrastructure-focused, and grounded in practical solutions that protects communities while supporting continued economic growth. C2ES launched the South Central Texas Accelerator in September 2025 to bring together local governments, businesses, utilities, universities, and community organizations across the greater Austin–San Antonio corridor to coordinate and accelerate resilience leadership to extreme heat, wildfire, and flooding.

The Accelerator is designed to move from coordination to activation: in its first year, it identifies shared risks and strategies, leaning on local solutions already working across the region. This Regional Action Roadmap synthesizes this first year of collaboration and charts a course to advance key action areas and demonstrate early wins in its second year.

Scoping Local Resilience Efforts and Regionwide Needs

Between October 2025 and February 2026, C2ES conducted scoping calls with 120 regional leaders from local governments, emergency management, businesses, utilities, community and nonprofit organizations, academia, and philanthropies to understand past experiences with extreme weather, identify emerging solutions and key implementers, and understand what risks, gaps, and priorities the Accelerator could help address.

These calls highlighted five primary climate hazards: extreme heat, wildfire, intense rainfall and flooding, drought and water availability, and winter storms and deep-freeze events. These hazards were often described as interconnected, with cascading impacts as a key concern. Scoping also made clear that perspectives on the relative risks and impacts of these hazards varied significantly across the region's communities, although almost all shared concerns about compounding impacts and interaction with the region's significant population growth and development. Leaders suggested that resilience solutions that center energy resilience, the built environment, insurance affordability, workforce development, community-level preparedness, and coordination across jurisdictions may be regional priorities.

Box 4: Accelerator Year 1 Milestones

- 120 scoping calls with cross-sector leaders
- 2 in-person convenings with 76 organizations participating
- 7 Key action areas identified
- 154 brainstormed strategies for implementation

The Accelerator is designed around a multihazard approach so that the strategies advanced can maximize benefit for community health and well-being and economic stability across the region. Rather than designing for every potential hazard however, each Accelerator selects a subset of priority hazards based on scientific projections, local priorities, opportunities to scale and replicate solutions, and overlapping impacts on public health, safety, infrastructure, ecosystems, and the regional economy.

By mid-century, the region could experience an **additional 30–60 days per year above 100 degrees F**, with even higher heat index values in urban areas. By the end of the century, **very hot days exceeding 110 degrees F are expected to occur regularly.**[9]

By mid-century, the region is projected to experience an **increase in the number of days with "high" fire danger from 73 to as many as 111 annually**, representing nearly a full month's worth of additional days with high risk of wildfire.[12]

By 2036, the region is projected to experience a **6–10 percent increase in extreme rainfall intensity and a 30–50 percent increase in extreme rainfall frequency** over the last half century.[14]

Selecting Our Focus Hazards: Heat, Wildfire, and Flooding

After extensive scoping and consultation, the South Central Texas Accelerator selected extreme heat, wildfire and grassfire, and flooding as the focal hazards for this regional effort.

Extreme Heat

High temperatures are not new to the region; however, the increasing frequency, duration, and intensity of extreme heat events are creating growing challenges for communities and businesses.

For more information on extreme heat impacts, see C2ES' resource on *Extreme Heat and Climate Change*.

Wildfire

Wildfire risk in peri-urban and rural areas of South Central Texas has grown markedly in recent years. Central Texas now carries the greatest wildfire risk outside of California.[10] Recent events, including the Bastrop County Complex (2021), Oak Grove (2022), and Blanco County (2024) fires, highlight how prolonged heat, drought, and vegetation stress are expanding ignition potential across the region.[11]

For more information on wildfire impacts, see C2ES' resource on *Wildfires and Climate Change*.

Flooding

The Austin–San Antonio corridor straddles the Balcones Escarpment, one of the most flash-flood-prone regions in the country. Texas had the most number of flood-related deaths in the United States between 1958 and 2008, and San Antonio and Bexar County experienced the highest number of flood-related deaths in Texas between 1996 and 2024.[13]

For more information on extreme precipitation and flooding impacts, see C2ES' resource on *Extreme Precipitation and Climate Change*.

TABLE 1: HAZARD IMPACTS TO PUBLIC HEALTH, INFRASTRUCTURE, AND ECONOMIES

	Public Health Impacts	Infrastructure Impacts	Economic Impacts
Extreme Heat	Extreme heat is the deadliest weather-related hazard in Texas, affecting low-income neighborhoods, outdoor workers, and rural residents without adequate cooling the hardest. Above 95°F, the body struggles to cool itself, raising the risk of heat stroke, respiratory and cardiovascular stress, and worsening chronic conditions.	High temperatures reduce power system efficiency while driving up cooling demand, straining the electrical grid. Heat also degrades roads and other transportation infrastructure.	Heat reduces labor and agricultural productivity and raises energy maintenance and repair costs. Summer heat in 2023 may have reduced Texas's gross domestic product (GDP) growth by up to $24 billion, and approximately 25% of surveyed Texas businesses reported lower revenue or production.[15]
Wildfire & Grassfire	Wildfire smoke degrades air quality, increasing the risk of respiratory and cardiovascular illness. Combined with extreme heat, smoke can also contribute to ozone formation, further compounding health risks.	Fires threaten homes, electrical infrastructure, and other built assets, particularly in the wildland–urban interface. Post-fire vegetation loss destabilizes soil, increasing erosion and flood risk.	Wildfires damage property, rangelands, and watersheds, and raise insurance costs in high-risk areas, creating financial strain and long-term recovery challenges for affected communities.
Flooding	Flash flooding poses serious life-safety risks. Floodwaters can carry fertilizers, heavy metals, and sewage, posing risks to human health and ecosystems. Flooded homes can also develop mold that causes respiratory problems. Repeated floods deepen housing insecurity, particularly in communities without access to reliable drainage or insurance.	Flooding makes roadways impassable and damages pavement and bridges. Rural areas face road washouts and well contamination, while urban areas face overwhelmed stormwater systems. Key corridors, including I-35, are vulnerable to closures, affecting regional mobility and connectivity. Flooding can also damage public buildings and energy infrastructure.	Flooding damages homes and property, and interrupts business operations and trade. The July 2025 Central Texas floods alone are estimated to have cost $18–22 billion.[16]

Extreme heat, wildfire and grassfire, and flooding have significant consequences for local public health, infrastructure, and economies.

South Central Texas provides fertile ground for unearthing solutions to extreme heat, wildfire, and flooding. These three hazards are intensified by shared regional drivers, including rapid growth, land-use change, and water stress, and are increasingly interconnected. For example, extreme heat can heighten wildfire risk, while post-fire conditions can increase erosion and flood risk during heavy rainfall. At the same time, shared vulnerabilities, such as expanding impervious surfaces and limited access to resilient infrastructure in vulnerable communities, amplify exposure across hazards.[1]

1 Through the scoping process, C2ES and stakeholders also identified drought as a major concern for the region. Because effective drought solutions often require state- or watershed-level coordination beyond the scope of this effort, the Texas Accelerator seeks to advance solutions to heat, wildfire, and flooding that can deliver cobenefits for water affordability and access.

Benefits of a Multi-hazard Approach

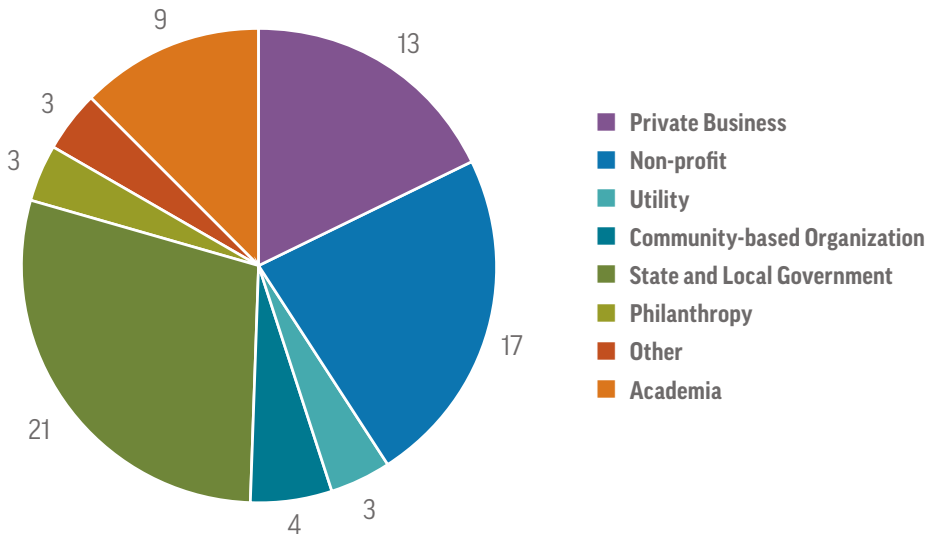
Addressing heat, wildfire, and flooding through a coordinated, regionwide approach presents a significant opportunity to advance multibenefit solutions that improve community and economic outcomes. Examples include home retrofits, urban greening, disaster management, and watershed restoration, which can reduce heat exposure, manage stormwater, and lower wildfire risk. Some of the benefits of taking a multihazard, multibenefit approach include:

- **Catalyzing multisector action** by aligning a range of city, county, business, community, and academic leaders to share knowledge and resources, coordinate efforts, maximize the effectiveness of investments, and advance a shared regional resilience agenda.
- **Stretching limited resources and stacking diverse funding** where each project reduces duplication of efforts, avoids costly trade-offs and unintended consequences, and leverages philanthropic, private, and public funding streams to move projects from planning to implementation.
- **Promoting health and safety** by ensuring that resilience investments protect residents and employees most affected by severe weather impacts.

Building the Accelerator Cohort

Resilience challenges and solutions do not fall neatly within one jurisdiction, sector, or funding source. Our scoping process identified a cross-section of individuals and institutions that were invested in or dependent on successful outcomes, that were already developing resilience solutions, or had local knowledge or unique perspectives. This mix was intentional—the cohort of 76 leaders who joined the convenings during the first year of the Accelerator brought together decision-makers and implementers who influence land-use decisions, infrastructure, emergency response, public health, insurance, energy reliability, housing, business continuity, and community trust. Participants came from urban and rural communities across the region, representing institutions including local governments, private companies, universities, philanthropies, nonprofits, and community-based organizations.

FIGURE 1: SOUTH CENTRAL TEXAS ACCELERATOR YEAR 1 COHORT BY SECTOR



Breakdown of organizations that attended the 2026 convening series by organization type.

Convening to Chart a Path Forward

The Accelerator convened two collaborative events in 2026: the *Resilient Communities and Economies Roundtable* in March in San Antonio and the *Resources Connector Forum* in May in Austin. These meetings gave participants a chance to link their work with other communities, highlight common needs and priorities, and start creating a plan for a safer, more sustainable, and more prosperous South Central Texas. Together, the convenings moved the Accelerator cohort from shared risk identification to implementation design, establishing the priority strategies that organize the latter half of this Roadmap.

The March Roundtable included discussions on shared experiences and insights into the physical impacts of heat, wildfire, and flooding; visions for a resilient future; practical paths to resilience; and opportunities to accelerate collaborative action. Participants identified five key action areas to focus resilience efforts on.

The May Forum reconvened participants and additional cross-sector leaders to build on earlier discussions and further explore pathways for regional resilience action. Attendees collaboratively developed action plans across the key action areas developed at the Roundtable and reflected on goals, opportunities, and priorities for the Accelerator to drive impact over the next year.

Insights from the discussions

- **Resilience should be measured by continuity, not just recovery.** Participants pictured a 2050 South Central Texas where growth comes with safer development patterns, reliable infrastructure, connected neighborhoods, protected workers, and accessible insurance. By their measure, success means residents stay safe, businesses stay open, and communities keep growing without compounding risk.
- **Resilience must be built into everyday growth and investment decisions.** Participants said resilience should not be a separate emergency management function. It should shape routine decisions on land use, infrastructure design, capital planning, housing, and economic development. That means favoring projects that reduce several risks at once, such as cooling neighborhoods while reducing stormwater runoff, or restoring riparian landscapes to lower wildfire and flood risk.
- **The region has ideas and momentum, but needs a shared implementation system.** Participants identified eight desired outcomes and 154 strategies for heat, wildfire, and flooding. Many organizations are already doing practical work, from heat response and wildfire risk reduction to stormwater improvements and resilient energy systems. But these efforts often move separately. These efforts are missing a way to prioritize scalable solutions, assign clear owners, and find financing. The region also needs insurance markets that offer affordable, accessible coverage, and stronger public-private partnerships. Participants said silos across organizations, jurisdictions, and sectors must come down, and projects should be packaged for larger-scale investment.
- **Trusted local networks are essential resilience infrastructure.** Neighborhood associations, churches, schools, nonprofits, employers, and emergency responders can reach residents before, during, and after extreme weather. Therefore, they can turn regional risk information into practical preparedness steps, especially for residents who may not receive or trust alerts from more formal sources.

- **Communication should connect resilience to what Texans already value.** Projects gain support when they are framed around safety, property protection, keeping businesses open, protecting workers, lowering long-term costs, maintaining insurability, and stewarding land and water. Regional messaging should be aligned but tailored to each audience (e.g., residents, local elected officials, businesses, funders, and state agencies).
- **Private, philanthropic, and public resources should be stacked earlier and more intentionally, including through public-private partnerships.** Public funders increasingly favor "shovel-ready" projects with measurable economic benefits. That leaves behind communities with urgent needs but limited staff, engineering plans, match dollars, and grant-writing capacity. Public-private partnerships, together with philanthropic and private funding, can fill this pre-development gap by paying for planning, design, partnership-building, and match requirements. For work that is not about building things—like communications, training, and network building—catalytic philanthropy, local grants, and in-kind support may be a more direct fit.



Cohort members identifying resilience solutions at the Accelerator convening in Austin, Texas.
Source: Libby Zemaitis

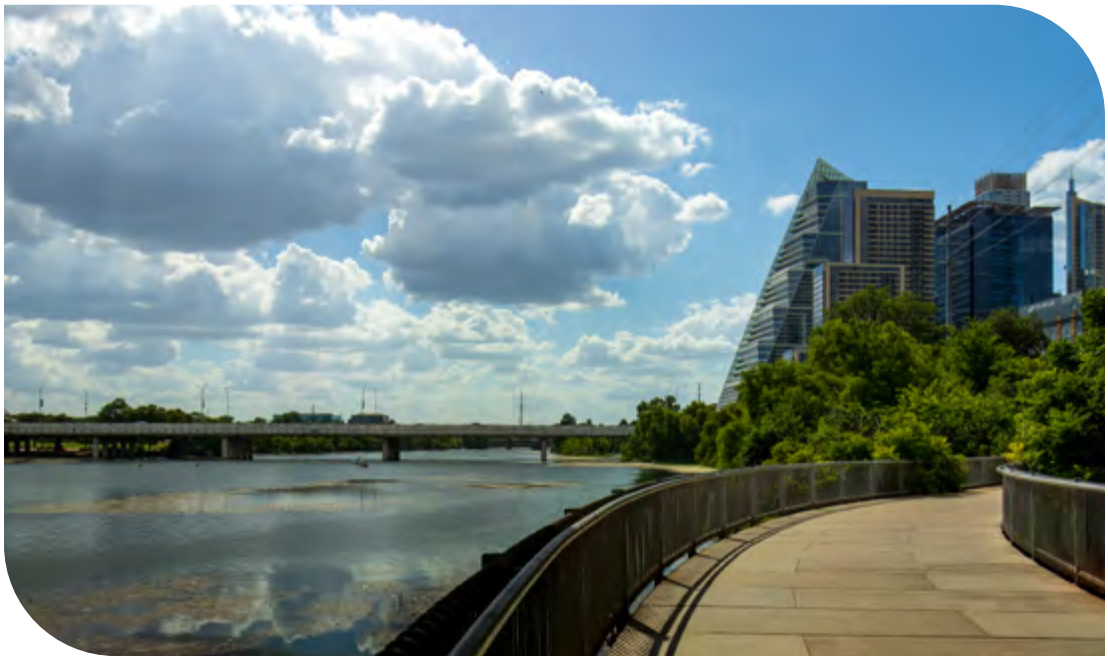
Pathways to Action

The cross-sector cohort of South Central Texas leaders moved from broad needs to eight implementable strategies through small-group exercises in the May Forum, identifying lead actors, potential partners, funding needs, near-term steps, and barriers to execution. C2ES further refined these strategies using input from regional leaders over the first year of engagement and insights across the Accelerator program.

Cross-Cutting Themes for Greater Impact

Although developed independently, priority strategies share recurring themes, highlighting common conditions, opportunities, and agreement among South Central Texas leaders on the path forward.

- **Build on what exists.** Each strategy names existing models, building blocks, or parallel efforts that can be expanded, plugged into, or learned from. This can help strategies scale with speed and efficiency while highlighting the existing innovation of South Central Texas communities.
- **Demonstrate success, then scale.** Several strategies include pilot programs to build the evidence private-sector partners and insurers need, reduce investment risk, and secure community support before scaling.
- **Small and rural communities cannot be an afterthought.** Strategies call for mapping small and rural communities' needs and closing capacity gaps, recognizing that much regional growth and hazard risk lies beyond urban cores.
- **Making the business case is critical.** Strategies define sector-specific value propositions needed to secure private-sector support by demonstrating that resilience investments make financial sense.
- **Trusted local voices carry the work.** Strategies rely on local leaders to reach different audiences, reflecting that action can only be scaled through trust.



Walking trail along Lady Bird Lake in Austin, Texas.
Source: Brigitte Thompson (iStock)

Key Action Areas and Priority Strategies to Advance Extreme Heat, Wildfire, and Flooding Resilience

The five key action areas define the regional resilience outcomes that South Central Texas should pursue, while the priority strategies identify specific initiatives to achieve those outcomes (see **Table 2**). The priority strategies are a menu, not a mandate, and their ordering does not indicate a ranking.

TABLE 2: KEY ACTION AREAS AND PRIORITY STRATEGIES

Key Action Area	Priority Strategies	Pages
Effective Regionwide Planning and Governance	Regional Resilience Leadership	*17*
Coordinated Cross-Sector Disaster Preparedness and Communications	Network of Networks	*20*
	Regional Disaster Communications	
	Predictive Technology	
Safe, Efficient, and Disaster-Ready Homes	Integrated Home Hardening	*27*
	Resilient New Development	
Reliable Critical Infrastructure and Services	Energy Security for Critical Services	*32*
Multi-benefit Nature-Based Solutions	Scaled Nature-Based Solutions	*35*

KEY ACTION AREA:

Effective Regionwide Planning and Governance

NEED: South Central Texas faces interconnected hazards—flooding, wildfire, extreme heat—that do not stop at jurisdictional boundaries. Yet planning, data, and investment decisions are often fragmented across counties, municipalities, agencies, utilities, universities, and private businesses, making it difficult to understand multiple risks, prioritize high-impact resilience investments, and coordinate action before disasters occur. Smaller and rural communities may have fewer planning resources and less access to technical expertise, while larger jurisdictions and regional institutions often hold data, tools, and lessons learned that could benefit the whole region if shared more systematically. A regionwide planning and data-sharing structure can help South Central Texas align priorities, identify cross-jurisdictional vulnerabilities and interdependencies, reduce duplication of efforts, and accelerate resilience investments that protect communities, infrastructure, businesses, and ecosystems across the urban-rural spectrum.

This planning and governance key action area can be foundational to the other strategies in the Roadmap: the shared structures it establishes can support the other four key action areas in moving from strategy to implementation.



Regional leaders at the San Antonio accelerator convening.
Source: Libby Zemaitis

PRIORITY STRATEGY:

REGIONAL RESILIENCE LEADERSHIP

Establish a regional resilience network to coordinate pre-disaster planning, research, data sharing, and investment across jurisdictions. A regional resilience governing structure can align priorities, share data and best practices, support local decision-making, facilitate development of public-private partnerships, and accelerate investments across urban and rural communities, creating the coordination required to drive action and investments. Successful implementation of this strategy will create a centralized hub for resilience planning, project development, partnership building, and investment coordination, helping communities across South Central Texas strengthen their capacity to reduce future disaster impacts.

STEPS TO IMPACT

1. **Learn from successful examples of regional coordination.** Learn from councils of government, regional resilience collaboratives, and other partnerships in Texas and beyond to understand approaches for sustaining funding, maintaining engagement, bridging urban-rural priorities, and delivering measurable resilience outcomes for communities and companies alike.
2. **Define the regional resilience network's mission, scope, and geography** by applying lessons learned from successful examples to local needs and opportunities across South Central Texas. Establish a clear focus on pre-disaster resilience, including risk reduction, resilience planning, project implementation, public-private partnerships, and regional capacity-building. Determine key participants, priority issue areas, and geographic coverage needed to meet mission.
3. **Recruit founding multisector partners by tailoring the value proposition to key participants.** Emphasize risk reduction and access to resources for local governments, research and applied planning opportunities for universities, and business continuity, workforce resilience, and economic stability for private-sector partners.
4. **Identify a host organization or operating structure.** Evaluate whether the coalition should be housed within an existing, higher-capacity organization or established as an independent entity. Consider staffing needs, long-term sustainability, and opportunities to formalize collaboration through memoranda of understanding (MOUs) and partnership agreements.
5. **Develop regional data sharing and resilience planning frameworks.** Create agreements addressing data ownership, access, maintenance, and use while supporting regional resilience assessments, vulnerability analyses, project prioritization, and tracking of resilience outcomes. Establish university and technical partnerships to support regional risk assessments, resilience metrics, scenario planning, data analysis, and project prioritization. The *Planet Texas 2050* initiative offers several examples for leveraging academic expertise to inform decision-making.
6. **Formally establish and launch the regional resilience network.** Develop a founding charter that defines membership, leadership structure, working groups, decision-making processes, and a recurring meeting cadence. Secure initial funding, establish annual resilience convenings and topic-specific working groups, and develop a multiyear work plan focused on advancing regional resilience priorities and attracting sustained investment.
7. **Launch a public-private partnership matchmaking platform to catalyze pilot projects and demonstrate early wins.** Convene major employers, infrastructure operators, philanthropic organizations, utilities, and technology providers to identify and launch a small set of pilot projects that pair private-sector capital, technology, or expertise with priority projects. Potential value propositions include workforce safety, reduced operational disruptions, regional consistency, and the opportunity to test innovative resilience solutions in partnership with the network. Use these early wins to build a track record, sharpen the network's value proposition, and attract additional partners and investment over time.

ESSENTIAL LEADERS & PARTNERS

- **Public:** councils of governments, local governments, municipal utilities, public health organizations, universities
- **Private:** health care organizations, investor-owned utilities, major employers, technology providers, telecommunications companies
- **Nonprofit:** community-based organizations, community funds and philanthropies, nonprofits focused on resilience

ENABLING FACTORS

- Leverage regional-level planning and projects to gain a competitive edge in grant applications.
- Cultivate partnerships with universities that can provide nonfinancial resources such as data, tools, and coordinating capacity.
- Create a defined scope to keep the coalition focused and prevent mission creep.
- Ensure meaningful participation from communities of different sizes, geographies, capacities, and perspectives across South Central Texas.

EXAMPLES AND EXISTING EFFORTS

- *Alamo Area Climate Plan*[17]
- *Bexar Regional Watershed Management Partnership*[18]
- *Texas Water Development Board Regional Flood Planning Groups*[19]
- *Texas One Water Hub*[20]
- *Greater Edwards Aquifer Alliance Technical Assistance Program*[21]
- *Southeast Florida Regional Climate Change Compact* (Florida)[22]
- *Puget Sound Climate Preparedness Collaborative* (Washington)[23]
- *Hudson Valley Flood Resilience Network* (New York)[24]

KEY ACTION AREA:

Coordinated Cross-Sector Disaster Preparedness and Communication

NEED: The South Central Texas region has many disaster preparedness efforts, but they are fragmented and lack standardized messaging and best practices. Flooding, wildfire, and extreme heat impact the dense urban cores in San Antonio and Austin as well as small towns and rural communities across the region, and no single organization or jurisdiction can address these risks alone. Organizations are often unaware of each other's work, critical tools go unattended, and many small and rural communities lack access to the resources and information available in larger cities. Some private-sector participants report significant staff time spent engaging county by county with emergency management leaders, while small businesses lack the capacity to engage, leaving them underprepared for extreme weather. In response to natural disasters in recent years, including the devastating 2025 Hill Country floods, emergency managers have improved coordination across jurisdictions. Even greater coordination among a broader set of actors, supported by shared data, technology, and standardized best practices, can help communities and companies prepare more effectively, reduce duplication of efforts, and ensure that residents are not caught off guard when disaster strikes.



Participants at the San Antonio, Texas, Accelerator convening working collaboratively to identify regional resilience solutions
Source: Libby Zemaitis

PRIORITY STRATEGY:

NETWORK OF NETWORKS

Develop a regional "network of networks" to coordinate disaster management and resources across sectors and communities. A lack of regional coordination can hamper disaster preparedness, response, and recovery efforts, leading to duplication of efforts and leaving small and rural communities without adequate support. Successful implementation of this strategy will connect and coordinate disparate efforts across the region while strengthening two-way disaster communication through trusted community leaders and collaborative outreach, empowering local governments, employers, and schools to better prepare for and respond during disasters. This "network of networks" will streamline interagency communications and establish a living database of resources and information providers while efficiently allocating resources across urban and rural areas, strengthening community trust and reducing loss of life and property.

STEPS TO IMPACT

1. **Map and engage leaders across disaster preparedness, response, and recovery to convene a cross-sector steering committee.** The committee should represent both urban and rural counties and include emergency management, public health, urban and rural counties, utilities, watershed and flood management organizations, community-based organizations, neighborhood associations, businesses, hospitals, faith-based disaster relief organizations, academia, and community foundations.
2. **Inventory ongoing disaster management initiatives to identify service gaps, coordination opportunities, and unmet needs across the region.** Assess existing capabilities in both urban and rural areas, map underserved and under-resourced geographic areas, and use the findings to define priority functions and shared objectives for the network. Identify and engage with successful disaster management-related coalitions and networks in Texas and beyond to learn from their models.
3. **Identify a funding strategy** by evaluating successful models from other networks in Texas and across the country. Explore grant funding, public-private partnerships, membership dues, and other strategies to ensure the network is durable and maintains long-term capacity. Consider a phased approach and the potential to stack diverse funding from public, private, and philanthropic sources. Develop the business-oriented value proposition of the network for prospective members and funders.
4. **Develop a regional repository of tools and resources** in a centralized, online location, potentially in collaboration with a university partner. The repository should be user-friendly and accessible, with an ongoing maintenance plan to keep it up to date. Resources in the repository should be available in multiple languages and come with clear information on how frequently each resource is updated. The network should develop a plan to disseminate hard-copy versions of essential repository resources in order to reach groups with limited internet access. Consider including the location of resilience hubs, cooling centers, and other locations with resilient power that may be activated during disasters.
5. **Define the network's scope, purpose, and activation criteria.** Working from the gaps and opportunities identified in step 2, the steering committee should define the network's purpose and operating structure. The network's initial primary functions might include activities like coordination, resource sharing, mutual assistance, or strengthening two-way disaster communication through trusted community leaders. It could also include collaborative outreach to support preparedness and action before, during, and after hazard events. The committee can use an MOU or charter to outline membership criteria and the specific circumstances, such as an imminent hazard event or the start of a hazard season, that trigger network activation. Initial network membership should expand beyond the steering committee to include a broad range of organizations and leaders from across sectors, jurisdictions, and communities in the region, including large employers interested in workforce safety.
6. **Launch, pilot, refine, and expand the network.** After the network launches, the steering committee should remain in place as the network's governing body while expanding membership to include a broader group of organizations and leaders across the region. Pilot the network's activation criteria and coordination protocols through a simulated or during real hazard event. Use the pilot to identify gaps in coverage, communication, or resource sharing, and refine the charter and protocols accordingly. Expand membership to additional organizations and jurisdictions based on pilot findings, prioritizing underserved rural areas identified in step 2. Refine and formalize the specific circumstances for network activation, and define a process and cadence for updating membership and activation standards.

ESSENTIAL LEADERS & PARTNERS

- **Public:** Councils of government, municipal utilities, public health organizations, state and local emergency management agencies, universities
- **Private:** Healthcare organizations, investor-owned utilities, large employers, public-facing companies, telecommunications companies, utilities
- **Nonprofit:** Community-based organizations, community funds and philanthropies, faith-based organizations, voluntary organizations active in disaster

LOCAL LEADERSHIP IN ACTION: AUSTIN DISASTER RELIEF NETWORK (ARDN)

Established in 2009, the *Austin Disaster Relief Network* (ARDN) is a trained, coordinated network of churches that supports disaster survivors in meeting both short- and long-term disaster recovery needs. Its model demonstrates how trusted local institutions can operate as a network that expands community capacity by providing training and coordination.

ENABLING FACTORS

- Ensure adequate capacity—whether through dedicated staff, member organizations, or other models—to support ongoing coordination and stewardship of the network.
- Secure dedicated funding for network capacity-building and repository maintenance so the effort is sustainable over time, possibly through membership dues.
- Develop new and adapt existing tools and messaging resources that are language accessible and applicable beyond urban centers.

EXAMPLES AND EXISTING EFFORTS

- *Austin Resilience Network*[25]
- *Blanco River Regional Recovery Team*[26]
- *Bastrop County Long-Term Recovery Group*[27]
- *San Antonio Resilience Hubs*[28]
- *Texas Ready*[29]

PRIORITY STRATEGY:

REGIONAL DISASTER COMMUNICATIONS

Establish a regional disaster communications toolkit for extreme heat, wildfire, and flooding with tailored messaging to equip local leaders across communities, businesses, and K–12 institutions. Success will look like residents, regardless of language, location, internet access, or income, having more accessible resources and support to take action across the full disaster cycle of preparedness, response, and recovery. This strategy can also include a K–12 preparedness curriculum to better reach students and their families across the region.

STEPS TO IMPACT

1. **Identify a cohort of local leaders** from organizations that carry out a range of disaster management activities across sectors, including local governments, large employers, private businesses, K–12 institutions, nonprofits, public and private health organizations, communications firms, universities, and community- and faith-based organizations.
2. **Map the landscape of existing disaster communications and resources** to identify gaps, challenges, and opportunities. Identify audience needs across communities, businesses, and educational institutions, including effective communication pathways, trusted messengers, language accessibility, and gaps in resident outreach and education related to disaster preparedness. Trusted messengers should be people embedded in daily community life, such as faith leaders, K–12 teachers, youth sports coaches, large employers, and local businesses. Also identify community gathering spaces, such as libraries and senior centers, where information can be disseminated. Identify opportunities to synchronize awareness campaigns across hazards, ensuring messaging is timely, recurring, and consistent before each hazard season while complementing and reinforcing existing single-hazard communications, such as those deployed by the *Austin–Travis County Wildfire Coalition*. Work with education nonprofits, teachers, and students to understand current practices and gaps and integrate best practices for messaging into the educational curriculum.
3. **Define the specific goals, users, and scope of the communications toolkit** and potential K–12 curriculum based on research findings and audience needs. Assess relevant grants, philanthropic opportunities, and potential public-private-academic partnerships to support and expand rollout to reach more audiences, possibly through related campaigns.
4. **Develop messaging for multiple and concurrent hazards** that gives local leaders a common set of tools to support their constituents before, during, and after multiple-hazard event types, including information on public health and safety, disaster preparedness, and post-disaster recovery. Also create a shared visual and messaging style guide that local partners can adapt to their own audiences while keeping core actions consistent. Develop messaging specific to private-sector audiences, including large employers and public-facing businesses, building on the *BeforeDuringAfter network*. Establish feedback mechanisms, such as surveys or listening sessions, to test and refine messaging based on input from target users.
5. **Deploy and refine the toolkit through regional partners.** Launch the toolkit through participating organizations, trusted messengers, and regional networks, such as the network established through strategy 2A. Provide compensation to community partners to expand outreach efforts. Partner with academia and the private sector to evaluate effectiveness, identify opportunities for improvement, and refine the toolkit.
6. **Scale and sustain** the messaging initiative by convening organizations across the region to share lessons learned and integrate the guide and network into ongoing operations.

ESSENTIAL LEADERS & PARTNERS

- **Public**: Educational institutions (including school boards, educators, students, and universities), emergency service districts, local governments
- **Private:** Chambers of commerce, communications firms, health care, home owners associations (HOAs) and neighborhood associations, large employers, media organizations, public-facing businesses, utilities
- **Nonprofit:** Community-based organizations, community funds and philanthropies, faith-based
- **institutions**, voluntary organizations active in disaster

ENABLING FACTORS

- Craft strategic framing and communications materials that meet communities where they are, using language that resonates across different audiences, and identify and empower trusted local messengers, including cultural "translators" who know how to reach those audiences most effectively.
- Align efforts, including messaging and timing, with existing initiatives developed around single hazards.

LOCAL LEADERSHIP IN ACTION: AUSTIN–TRAVIS COUNTY WILDFIRE COALITION

The *Austin–Travis County Wildfire Coalition* brings together local government, emergency managers, utilities, first responders, nonprofits, and community partners around shared wildfire preparedness outreach and messaging, including to local schools. Run by the Travis County Fire Marshal's Office, the City of Austin, and Texas State University, the coalition shows how coordinated communications can improve awareness and readiness across audiences with differing needs.

EXAMPLES AND EXISTING EFFORTS

- *ATXFloods.com*[30]
- *Warn Central Texas*[31]
- *San Antonio Heat Resilience Playbook*[32]
- *Turn Around Don't Drown campaign*[33]
- *United Way 211 Navigation Center*[34]
- *Texas A&M AgriLife Extension Resilience Education Programs*[35]
- *Go Austin/Vamos Austin Climate Navigator Program*[36]
- *Austin–Travis County Wildfire Coalition*[37]
- *Larimer Connects* (Colorado)[38]
- *King County's Inclusive Emergency Communications Plan* (Washington)[39]

PRIORITY STRATEGY:

PREDICTIVE TECHNOLOGY

Deploy technologies that strengthen disaster forecasting, monitoring, modeling, and decision support across the region. This strategy advances the use of predictive analytics, environmental sensing, hazard modeling, and data integration to help communities and organizations anticipate risks, prioritize mitigation investments, and support operational decision-making before and during extreme heat, wildfire, flooding, and other regional hazards. Successful implementation will result in a coordinated regional capability that provides emergency managers, infrastructure operators, businesses, and other decision-makers with more accurate, localized, and actionable hazard intelligence, shared in accessible formats through trusted local organizations.

STEPS TO IMPACT

1. **Assess the existing predictive technology landscape.** Identify and engage technology and research partners, including technology firms, utilities, data providers, universities, national laboratories, meteorological organizations, and telecommunications partners, with capabilities in remote sensing, artificial intelligence, environmental monitoring, geospatial analytics, and predictive modeling. Inventory forecasting tools, monitoring networks, data sources, modeling platforms, and decision-support systems currently in use across the region by governments, businesses, utilities, and universities. Identify gaps and opportunities across hazard prediction, spatial coverage, interoperability, accuracy, and long-term maintenance, with particular attention to tools that forecast flood, wildfire, extreme heat, and related impacts such as smoke. Learn from successful models in Texas and beyond. Identify existing planning and decision-making processes that new predictive technologies could be integrated into, such as the network outlined in strategy 2A.
2. **Convene a technical working group to define priority prediction and monitoring needs.** Bring together emergency managers, utilities, infrastructure operators, universities, government agencies, technology partners, and community-based organizations to identify the highest-value opportunities to improve hazard forecasting, monitoring, and operational awareness. Prioritize needs that support regional decision-making and can be applied across both urban and rural communities. Use existing technical initiatives, like the University of Texas (UT) at Austin's *UT-City coLab*, as models.
3. **Identify a funding and partnership strategy to support the development, piloting, and long-term sustainability of predictive technologies.** Explore funding options such as public-private-academic partnerships, philanthropic capital, university research funding, and in-kind contributions from technology and data partners. Consider fellowship models that partner technology companies with local universities to place technical experts in local governments with limited technological capacity. Develop the business case for private-sector investment by identifying value for companies, such as reduced operational disruption, protected assets, and insurance-related benefits, in addition to the broader public safety benefits that predictive technology provides. Learn from funding models used by comparable initiatives in Texas and beyond.
4. **Pilot priority forecasting, monitoring, and decision-support tools.** Implement a pilot project to address identified gaps, using tools such as enhanced flood forecasting, wildfire and smoke detection, heat-risk mapping, environmental sensor networks, or integrated hazard modeling platforms. Fund and deploy the pilot via public-private-academic partnership. Integrate the tools into one or more existing planning and decision-making processes. Evaluate performance, usability, scalability, and value for decision-makers. Work with trusted community partners to ensure outputs are actionable and accessible. Create a mechanism for local organizations and residents to validate the data.
5. **Scale and integrate successful solutions across the region.** Expand proven technologies and integrate them into emergency management, infrastructure planning, resilience investments, and operational decision-making processes, supported by technical assistance. Ensure new capabilities complement existing systems and improve regional hazard forecasting and preparedness. Use the best practices and framework in the Centre for Public Impact's *Adapting Operations to a Changing Climate* guidebook to translate insights into operational impact.[40] Define data-sharing agreements, ownership structures, maintenance responsibilities, and funding approaches to ensure technologies remain in use and continue

ESSENTIAL LEADERS & PARTNERS

- **Public:** local emergency managers, local governments, river authorities, the National Weather Service and other forecasting entities, universities and research institutions
- **Private:** infrastructure operators, technology, geospatial, and data analytics companies, telecommunications providers, utilities
- **Nonprofit:** community-based organizations, environmental monitoring groups, watershed organizations

ENABLING FACTORS

- Develop strong data-sharing agreements across jurisdictions.
- Build capacity and provide technical assistance for rural communities to participate.

EXAMPLES AND EXISTING EFFORTS

- UT–Austin *Planet Texas 2050*[41] and *City Co-Lab*[42]
- *CoSA–UTSA Urban Heat Island Mitigation Program*[43]
- *Xcel Energy Integrating Advanced Technology*[44]
- *Austin Energy Pano AI deployment*[45]
- *Denver Love My Air* (Colorado)[46]
- *Georgia Tech CRIS-HAZARD* (Georgia)[47]
- *AT&T Weather Operations Center and Geo Modeler*[48]

KEY ACTION AREA:

Safe, Efficient, and Disaster-Ready Homes

NEED: The San Antonio–Austin corridor is one of the fastest-growing regions in the United States.[49] While some population growth has increased density in heat-vulnerable urban areas, much of the development is pushing into the wildland-urban interface, placing more homes in terrain at higher risk of wildfire, particularly during prolonged droughts. Growth is also expanding into the Texas Hill Country, which is especially vulnerable to flash flooding. Existing homes face their own vulnerabilities: a significant share of the housing stock in both urban and rural areas predates modern standards for wildfire resistance, thermal performance, and flood protection. Meaningful resilience benefits often require neighborhood- or community-scale improvements, as risk reduction is driven not only by individual properties but also by the collective performance of interconnected homes, infrastructure, and systems during a disaster. Without proactive investment to harden both existing homes and new construction, the region's rapid growth will compound its hazard exposure for decades to come.



Aerial view of Gonzales, Texas, showcasing how a growing community interacts with the wildland urban interface.
Source: Jacob Boomsma (iStock)

PRIORITY STRATEGY:

INTEGRATED HOME HARDENING

Develop a phased multihazard home hardening initiative across the region. An integrated "one-stop shop" for homeowners and renters will scale needed home hardening to protect households from growing extreme heat, wildfire, and flooding risks, while delivering benefits such as lower electricity bills and reduced grid demand. This approach will leverage existing single-focus approaches to home upgrades (e.g., energy efficiency or wildfire mitigation) and seek to enhance neighborhood- or community-scale resilience and attract new partners, such as insurance companies. It is designed to reduce home losses and insurance claims while expanding regional financing pathways and building a workforce trained to deliver hardening upgrades and maintenance. This strategy will seek to leverage future post-disaster recovery funds to support and scale the initiative, helping residents rebuild stronger and better prepare for future hazards. The initiative could begin by addressing wildfire and extreme heat risks together and integrating flood risks over time.

STEPS TO IMPACT

1. **Establish a working group** by convening insurers, lenders, community development financial institutions (CDFIs), utilities, builders, universities, community funds and philanthropies, housing authorities, HVAC and building suppliers, trade professionals, HOAs, and nonprofits focused on housing, energy, and disaster recovery to design the program collaboratively. The working group should begin by assessing program models, financing options, and regional needs before determining the appropriate lead entity or formal organizational structure to implement and sustain the initiative .
2. **Learn from successful models.** Identify relevant initiatives and industry standards for hardening in Texas and beyond, such as the *IBHS FORTIFIED*, *Wildfire Prepared Home*, and *Resilient Home America*. Review them for effective approaches, including leveraging public-private partnerships and innovative financing. This analysis should also include other performance-based, recognized-consensus standards and certification programs that improve resilience to regionally relevant hazards.
3. **Assess the regional landscape for home hardening.** Map neighborhood-scale wildfire, extreme heat, and flood vulnerabilities alongside housing stock conditions, insurance access, and socioeconomic factors to identify priority communities where home hardening would provide the greatest benefit. Evaluate the need and opportunity for more foundational upgrades that may be needed before home hardening. Assess existing home-upgrade initiatives in communities across the region through organizations like Rebuilding Together, Habitat for Humanity, Travis County, and Meals on Wheels, as well as through energy efficiency grant programs administered by local utilities. Assess workforce and supply chain opportunities and challenges across the region.
4. **Establish a regional multihazard home hardening program with financing.** Evaluate and select home upgrades based on relevance to hazards, feasible financing, and regional workforce capacity. Initial measures may include ember-resistant vents, defensible space, cool roofs, insulation upgrades, reflective building materials, shade improvements, and HVAC efficiency upgrades. Flood-specific measures, such as utility elevation, flood vents, drainage improvements, and flood-resistant materials, can be added in later phases. Create a blended financing strategy leveraging public-private partnerships, public funding, utility programs, on-bill financing, green banks, revolving loan funds, insurance incentives, catalytic philanthropy, and private financing. Seek to quantify new revenue streams via energy-efficiency upgrades and insurance premium reductions to demonstrate hardening benefits and unlock additional capital and partners. Pursue partnerships with utilities to integrate energy-efficiency, electrification, and demand-management programs, including incorporating smart-home technologies that could also help monitor risk and adapt during hazardous events. Ensure the program supports both single-family and multifamily homes and reaches low- and moderate-income households via incentives or scaled pricing.
5. **Launch a neighborhood demonstration project.** Retrofit a representative set of homes in a priority community to create a demonstration neighborhood, ideally including at least one multifamily property. Articulate the benefits of hardening to target audiences, for example, by emphasizing cost savings and safety for homeowners and renters. Develop a cost-benefit one-pager as part of this approach. Use pilots to test technical approaches, validate costs, and document insurance, energy, and resilience benefits. Showcase completed projects to build resident interest and expand supportive partnerships.
6. **Scale the program across the region.** Establish a catalytic one-stop shop process for homeowners and renters that includes resilience assessments, customized retrofit plans, technical assistance, vetted contractors, and financing pathways. Develop an educational campaign that clearly quantifies and explains the benefits of home hardening, with local governments, real estate agents, and homebuilders serving as messengers. The campaign should be grounded in findings from the pilot. Explore partnerships with HOAs, neighborhood associations, and public housing authorities. Use post-disaster reconstruction as an opportunity to seamlessly and cost-effectively integrate hardening into rebuilding efforts. Set measurable adoption goals to track progress, attract funders, and achieve visible action. Build a pipeline of trained and certified local workers to deliver home assessments, hardening upgrades, and maintenance through partnerships with workforce development programs, using resource hubs like *The Switch Is On* as models.[50] Explore options for workforce training and certification, such as registered apprenticeship programs and portable credentials, and establish a vetted contractor network.

ESSENTIAL LEADERS & PARTNERS

- **Public:** community colleges; councils of government; education service centers; local governments; local workforce development boards; public housing authorities; state emergency management, housing, and energy agencies
- **Private:** HOAs, HVAC and building material companies, insurers, lenders, multifamily building owners and managers, smart-home technology providers, trade organizations, utilities
- **Nonprofit:** CDFIs, community funds and philanthropies, green banks, neighborhood associations, nonprofits focused on housing, energy and disaster recovery, trade unions

ENABLING FACTORS

- Showcase proof of concept with hard data from studies and pilots.
- Secure insurer buy-in so that hardening measures are reflected in insurance-related benefits

LOCAL LEADERSHIP IN ACTION: TRAVIS COUNTY F.L.A.M.E. INITIATIVE

The *F.L.A.M.E. Initiative* is a proactive wildfire mitigation program launched by Travis County Emergency Services Districts Nos. 2, 11, and 12; the Austin–Travis Wildfire Coalition; and the Travis County Fire Marshal's Office. F.L.A.M.E. engages residents and leaders in housing, design, landscaping, emergency services, insurance, and property management to reduce wildfire risk. The program provides hands-on guidance, property assessments, and practical strategies to strengthen wildfire resilience. This initiative demonstrates how local partnerships can help residents understand and implement property-level resilience measures before disasters occur.

EXAMPLES AND EXISTING EFFORTS

- *Austin Energy Weatherization Assistance Program*[51]
- *CPS Energy Casa Verde Weatherization Program*[52]
- *F.L.A.M.E. Initiative*[53]
- *Del Valle Community Coalition Flood Insurance Assistance*[54]
- *Go Austin/Vamos Austin Flood Support & Insurance Advocacy*[55]
- *Texas Energy Relief and Resilience Fund*[56]
- *Resilient Home America*[57]
- *Impact Development Fund's Recovery Support Program* (Colorado)[58]
- *Wildfire Risk Reduction Grants* (California)[59]
- *The Resilient Delta Fund* (California)[60]
- *Resilient Retrofits Program* (New York)[61]

PRIORITY STRATEGY:

RESILIENT NEW DEVELOPMENT

Promote resilient growth and new development through voluntary standards and code updates that mitigate the risk of flooding, wildfire, and extreme heat. As the region continues to rapidly expand into flood- and wildfire-prone areas, new development must be built to updated standards to avoid devastating economic impacts from future disasters. Because building codes are adopted and enforced locally, regional efforts are most effective when they enable, incentivize, and coordinate local action rather than replace it. This strategy will deliver a regionally coordinated approach to adopting future-proof building standards and systemic code updates to scale resilient development, reducing losses, damage, and insurance claims. New resilience-designed developments will be safer to live in and easier to insure, helping to protect long-term housing access and affordability, as well as local government tax bases and budgets.

STEPS TO IMPACT

1. **Map organizations and policies that most influence new development across South Central Texas.** Identify the public-, private-, and nonprofit-sector actors that shape new development outcomes, including local and state government, developers, trade professionals, industry groups, architecture and engineering firms, building material and HVAC companies, utilities, lenders, insurers, major employers, conservation organizations, and community groups across urban and rural areas. Map decision-making authority, funding, incentives, relationships, and points of influence to understand who can advance resilient development practices, where barriers exist, and which actors are best positioned to champion and scale resilient growth strategies.
2. **Establish a cross-sector working group on resilient development.** Convene representatives from key organizations identified in step 1 to explore alignment of flood-, wildfire-, and extreme heat–related codes and standards with community and economic benefits, including access to affordable finance and insurance. Engage the International Code Council and local university departments of public administration and urban and regional planning, such as those at UT San Antonio, to inform code and standards alignment with academic expertise and national best practices. The group will initially focus on residential construction, while identifying other rapidly growing building types, such as new commercial and mixed-use buildings, that may benefit from enhanced resilience measures.
3. **Learn from successful models.** Identify and connect with communities in South Central Texas and beyond that have adopted hazard-resistant codes, standards, or voluntary construction practices. Compile lessons learned and best practices, including cost savings, resource efficiency, and builder expertise, and identify key actors involved.[62] Prioritize outreach to other fast-growing communities that have already updated codes for extreme heat, wildfire, and flood risk, as well as rural communities that have successfully adopted updated codes, to identify feasible models suited to the Texas's regulatory and political environment. Learn which incentives and voluntary measures have resulted in high uptake of new standards.
4. **Develop the business case for the most beneficial resilient building practices.** Assess the costs and benefits of a range of successful building code updates and voluntary standards, including the marginal construction costs and avoided losses. Use these findings to select resilient building practices to scale regionwide, prioritizing those with multihazard benefits. Draw on existing research, programs, and efforts, such as those of the *Texas A&M Energy Systems Laboratory*.
5. **Develop a regionally tailored resilient development roadmap** to support and scale priority building practices. The roadmap should speak to urban, suburban, and rural jurisdictions, showcase the benefits of voluntary adoption, and leverage counties as facilitators across multiple communities. Integrate financing strategies, case studies, and successful implementation models, including public- and private-sector incentives, such as streamlined permitting, resilient procurement standards, and public-private partnerships. Include a communications strategy with tailored messaging to key decision-makers that clearly articulates the benefits of implementing the priority resilient building practices, including a simple cost-benefit one-pager.
6. **Develop a pilot program.** Provide seed funding, ideally with support from industry partners, and technical assistance through nonprofit organizations and university partners engaged in step 2 and to implement updated codes or standards. Utilize existing tools, such as South-central Partnership for Energy Efficiency as a Resource (SPEER)'s *Energy Code Adoption Toolkit*. Identify target local governments and zones that would demonstrate early wins for code updates and viability in both urban and rural settings. Local governments can use public buildings as visible demonstration projects that showcase resilient construction methods before advancing changes regionwide. The pilot can provide an opportunity to refine model codes or standards. Document and publish findings for other communities to easily access.
7. **Scale implementation across the region.** Use lessons learned from the pilot to develop a strategy to support further adoption of codes or standards, including communicating concrete benefits and expanding public-private partnerships. This step can be further supported by a regional peer learning network, technical assistance, regional incentives, workforce development, performance tracking, and state and regional advocacy.

ESSENTIAL LEADERS & PARTNERS

- **Public:** councils of government, local governments, universities
- **Private:** architecture and engineering firms, building materials and HVAC companies, building trades, developers, insurers, lenders, local businesses, real estate groups and building managers, utilities
- **Nonprofit:** building standard- and certification-setting organizations, community finance organizations, housing and community development nonprofits, standard setting groups (e.g., Insurance Institute for Business and Home Safety, American Society for Testing and Materials, International Code Council)

ENABLING FACTORS

- Prioritize resilient building practices that are feasible to implement within the region's regulatory, political, market, and capacity constraints.
- Enable faster implementation via streamlined permitting to incentivize adoption and avoid long timelines that can lead to obsolescence.
- Engage developers and other industry groups early in the process to support buy-in and successful implementation.
- Explore additional local opportunities to strengthen and expand updated codes or standards via zoning, state advocacy, and other mechanisms.

EXAMPLES AND EXISTING EFFORTS

- *Build San Antonio Green*[63]
- *Austin Wildland Urban Interface Code*[64]
- *Lone Star PACE*[65]
- *Hill Country Alliance Growth & Stewardship Resources*[66]
- *IBHS Wildfire Prepared Home*[67]
- *Boulder County Wildfire Partners* (Colorado)[68]
- *Colorado Wildfire Resiliency Code* (Colorado)[69]
- *Clean & Resilient Building Energy Codes* (New York)[70]

KEY ACTION AREA:

Reliable Critical Infrastructure and Services

NEED: Strong infrastructure and reliable public services—from cooling centers and hospitals to water, transportation, and communication systems—are the foundation of community resilience and business continuity before, during, and after disasters. In South Central Texas, these systems share a common vulnerability: they all depend on a reliable power supply, and each summer tests the limits of the region's electric grid. The Electric Reliability Council of Texas (ERCOT) broke its all-time peak demand record in July 2026 when demand exceeded 91 GW, as Texans used unprecedented amounts of electricity to cool their homes and offices during an extreme heat event.[71] Because ERCOT largely operates as a separate grid from the rest of the continental United States, Texas cannot easily draw on neighboring power systems when demand spikes or generation falters, making the region uniquely exposed when extreme weather and grid stress hit, like during the 2021 winter blackout.[72] The consequences of outages can directly impact public services. For example, when power fails, water treatment systems can halt, pump stations can cease operations, and residents can face life-threatening exposure without heating or cooling.[73] Flood events stress water and wastewater systems at the moment when power is most needed to keep them running, while wildfire events can damage power lines and communication infrastructure that emergency response depends on.[74] Some communities and utilities have begun to implement backup storage, but many households and communities across the region are underserved by current efforts.



Interstate 35 connects the established and growing cities in the region: Austin, San Marcos, New Braunfels, and San Antonio, Texas.
Source: johnemac72 (iStock)

PRIORITY STRATEGY:

ENERGY SECURITY FOR CRITICAL SERVICES

Invest in resilient energy systems to maintain critical services during extreme weather events and other disruptions. The grid is vulnerable to outages from more frequent and intense hazards, reducing the ability of communities and businesses to respond to and stay safe during extreme heat, extreme cold, wildfire, and flooding events. This strategy will support a regional approach to scaling proven solutions already being implemented by leading local communities and utilities. For example, the region can deploy more distributed energy resources, such as solar+storage and microgrids, that operate regularly and can serve as backup power to ensure that critical assets remain operational during large grid outages. Critical services include telecommunications, hospitals, resilience hubs, cooling centers, emergency shelters, and lift and pump stations for water, wastewater, and flood control.

STEPS TO IMPACT

1. **Identify the most critical assets and services that communities and businesses rely on across the region,** including strengths and gaps in their energy security. Apply standardized scoring criteria for exposure, sensitivity, and service criticality to assess and prioritize assets, with particular attention to lift and pump stations critical to water, wastewater, and flood control systems, drawing on existing frameworks, such as Cybersecurity and Infrastructure Safety Agency's *Infrastructure Resilience Planning Framework*[75] or EPA's *Vulnerability Self-Assessment Tool*, where relevant.[76] Refine priorities by mapping interdependencies and weak nodes that could cause cascading regional impacts using data from municipalities, utilities, emergency management, and private-sector operators, possibly in partnership with a local university. Work with community-based organizations to integrate local knowledge and public health and safety considerations. Identify both much-needed upgrades and low-hanging fruit for early wins.
2. **Establish a regional working group** by convening representatives from counties, municipalities, water and electric utilities, emergency management, and private-sector partners, ensuring representation from both small and rural jurisdictions and larger urban cities and counties. Put in place any needed data-sharing agreements to protect proprietary and sensitive data while enabling its use for strategy implementation.
3. **Develop a funding and implementation strategy** that leverages the public and private sectors and incorporates phased capital planning. Identify a menu of funding options that could support phased implementation and long-term maintenance, including rebates, bonds, water security grants, the *Texas Backup Power Package*, utility bill savings, ratepayer mechanisms, public-private partnerships, and revolving loan funds. Assess whether emerging policies to regulate data center development present an opportunity to secure more capacity or capital for backup infrastructure.
4. **Advance project readiness** by establishing standard design templates and model plans, for example, a template for solar+storage that can be replicated across jurisdictions and a range of critical infrastructure. Package similar projects together to strengthen grant applications and make a regional project pipeline attractive to investors.
5. **Deploy pilots to demonstrate early wins.** Fund and install pilot systems, such as solar+storage, on one to three identified assets. The pilots will generate a locally relevant proof of concept and a replicable benchmark for cost and performance. Work with private-sector partners to identify pilot options and implement projects. Before or alongside pilot deployment, ensure utility and municipal staff and contractors receive training on installation and maintenance of systems that can provide backup power, drawing on existing programs or new curricula as needed.
6. **Scale upgrades across the region** by sharing model design templates, funding strategies, and lessons learned from the pilots. Work with local governments and private businesses to integrate upgrades into capital improvement plans and adapt model plans for local use. Leverage post-disaster recovery funding and rebuilding efforts to accelerate resilience upgrades to critical infrastructure and services. Assess additional regional implementation opportunities through land-use planning, code updates, workforce programs, maintenance standards, or bulk purchasing.

ESSENTIAL LEADERS & PARTNERS

- **Public:** local governments, municipal power and water utilities, state and local emergency management agencies
- **Private:** engineering firms, infrastructure operators, investor-owned power and water utilities, natural gas producers and suppliers, technology companies, telecommunications companies, top water and power users
- **Nonprofit:** community-based organizations, energy-focused nonprofits

ENABLING FACTORS

- Ensure availability of trained installers and maintenance staff across the region, building on the training and curriculum development described in step 5.
- Cultivate sufficient local government and contractor capacity to plan, install, operate, and maintain resilient energy systems.

LOCAL LEADERSHIP IN ACTION: BANDERA ELECTRIC COOPERATIVE SMART BATTERY PROGRAM

Bandera Electric Cooperative's *Smart Battery Program* offers members subsidized home battery storage systems that provide backup power during outages and help manage grid demand during peak-load periods. The program—designed to improve household-level energy resilience in a rural Hill Country service area that is particularly vulnerable to extreme weather events and grid disruptions—demonstrates how distributed energy resources can provide resilience benefits to both individual customers and the wider power system

EXAMPLES AND EXISTING EFFORTS

- *CPS Energy GridNext*[77]
- *Bandera Electric Cooperative Smart Battery Program*[78]
- *Microgrids for Community Resilience Program* (Colorado)[79]
- *Tempe Microgrids Master Plan: Resilient Energy Hubs* (Arizona)[80]

KEY ACTION AREA:

Multibenefit Nature-based Solutions

NEED: South Central Texas is home to ecological and water systems that cross jurisdictional boundaries and provide essential services to communities and businesses throughout the region, including drinking water and cooling. For example, the Edwards Aquifer supplies drinking water to approximately 2 million people and depends on recharge from the Hill Country watershed.[81] Meanwhile, urban areas, including San Antonio and Austin, experience intensifying heat-island effects as increasing impervious surface areas and a shrinking tree canopy drive temperatures higher. Investment in nature to reduce weather hazards—known as nature-based solutions (NbS)—also yields multiple dividends, or cobenefits, including improved habitat, water and air quality, carbon sequestration, public health, recreation, and more. Nature-based solutions can include tree canopy and green infrastructure that address heat and stormwater in urban centers, vegetative buffers that mitigate flooding in suburban areas, and fire-aware landscaping, shaded fuel breaks, and defensible space programs that reduce wildfire risk in communities at the wildland-urban interface.



The region is home to a wide range of natural resources, like its river system (San Marcos River pictured above), that can be useful in implementing nature-based solutions
Source: Chester Leeds (iStock)

PRIORITY STRATEGY:

SCALED NATURE-BASED SOLUTIONS

Design and implement nature-based solutions that deliver multihazard benefits at the site, watershed, and regional levels. This strategy will scale up intentional NbS efforts that reduce risks from multiple hazards—including flood, extreme heat, and wildfire—while improving water resources, habitat, and community well-being across urban and suburban areas and communities at the wildland-urban interface. A prioritized NbS project pipeline would be anchored in regional goals and replicable designs, enabled via new partnerships and financing, and designed to be accessible to individual landowners and businesses. Although many NbS are location specific, hazards and ecosystems extend across multiple communities and jurisdictions. This strategy will advance place-based NbS to deliver watershed-scale benefits over time, with the option to establish an ongoing regional program.

STEPS TO IMPACT

1. **Assess the landscape of NbS programs and resources** to identify strengths and gaps across the region. Review existing resources like the *Austin Environmental Directory*,[82] the *Austin Green Infrastructure Strengths and Gaps Assessment*,[83] and the *Texas Land Trust Council Conservation Lands Inventory*.[84]
2. **Convene a cross-sector working group** of decision-makers across the region, including local governments, conservation organizations, large private landowners and ranchers, developers, water utilities, insurers, universities, companies with large footprints, and major employers.
3. **Learn from successful examples in the region and beyond,** including the *Great Springs Project*,[85] Texan by Nature's *tree planting partnership* with H-E-B,[86] the *Texas Water Development Board's NbS for Flood Mitigation* project, and agricultural land conservation programs.[87]
4. **Develop shared regional goals and design standards.** Elevate relevant community goals from existing plans and processes to help define a shared regional vision for NbS that delivers heat, flood, and wildfire resilience at multiple scales. Incorporate key approaches, such as native and fire-resistant vegetation, defensible space principles, riparian and forest restoration, low-impact development practices, and other forms of green infrastructure. Establish common goals and metrics to assess regional and watershed-scale ecological, hazard mitigation, and economic benefits. Identify recommendations for advancing NbS across varying development regulations in the region.
5. **Develop a regional NbS implementation toolkit** to guide identifying priority projects, securing funding, selecting native species and regionally appropriate design approaches, and successfully installing and maintaining projects. The toolkit should include an assessment of needs and opportunities, financing and policy options, case studies, replicable project templates, workforce and community engagement strategies, and outreach materials to support voluntary participation by landowners and businesses, making it actionable for project-specific implementation. Build on the Texas Water Development Board's work and the *Texas A&M Agrilife Green Infrastructure Toolkit for Texas Communities*.[88]
6. **Create a regional NbS project pipeline.** Assess communities and areas that could benefit most from NbS based on flood risk, urban heat islands, wildfire exposure, watersheds, and ecological corridors. Inventory projects from existing plans and proposals, prioritizing them based on risk reduction, feasibility, and cobenefits, and highlighting those with the highest potential for cross-jurisdictional impact.
7. **Advance pilot projects to demonstrate early wins,** focusing on highly feasible, visible projects that deliver community benefits and incorporate community input into project selection and design. Seek partnerships and funding, such as youth employment programs, corporate volunteers, and community installation days. Implement pilot projects and develop case studies documenting costs, benefits, and lessons learned.
8. **Scale the program for greater regional and watershed benefits.** Showcase pilot projects to attract additional investment, pursue coordinated regional grant applications, and package projects into a regional investment portfolio. Establish mechanisms for communities and landowners to submit additional projects. Consider creating a one-stop shop for interested landowners to gain funding and technical assistance to implement projects; embedding NbS requirements into local plans, capital investment plans, and development standards; and advocating for state funding programs that support multijurisdictional projects. Incorporate projects into local hazard mitigation plans to ensure eligibility for future Federal Emergency Management Agency (FEMA) funding. Expand successful pilots into watershed-scale implementation. Update local development regulations and codes that allow, encourage, and incentivize the use of green infrastructure strategies, and encourage HOAs to do the same.

ESSENTIAL LEADERS & PARTNERS

- **Public**: local governments, municipal utilities, park boards, the Texas Water Development Board, universities and extension programs, water authorities
- **Private:** agricultural producers, commercial property owners, companies with large footprints, developers, engineering and landscape architecture firms, HOAs, insurers, investor-owned utilities, landowners and ranchers
- **Nonprofit:** community-based organizations, community funds and philanthropies, land conservation and restoration organizations, neighborhood associations, urban forestry groups, water-focused organizations and coalitions, workforce development groups

ENABLING FACTORS

- Secure buy-in from private and public landowners via early and regular engagement.
- Pursue state and federal funding to scale and multiply projects greater than any one municipality could deliver.
- Foster a trained workforce, possibly with youth employment, for ongoing NbS installations and maintenance.
- Identify at least one source of native trees and plants to accommodate increased demand from new projects.

LOCAL LEADERSHIP IN ACTION: SAN ANTONIO RIVER AUTHORITY WATERSHED PLANNING AND LOW IMPACT DEVELOPMENT PROGRAMS

The San Antonio River Authority (*SARA*) combines watershed-scale planning with on-the-ground implementation of riparian restoration, native vegetation, and green stormwater infrastructure. Its low-impact development (LID) guidance and incentive programs demonstrate how NbS can reduce flood risk, mitigate extreme heat, and provide ecological cobenefits across jurisdictions.

EXAMPLES AND EXISTING EFFORTS

- *San Antonio River Authority Watershed Master Plan, Riparian Rehabilitation & LID Program*[89]
- *TreeFolks*[90]
- *Bexar Branches Alliance*[91]
- *Texan by Nature Conservation Investment Matching Program*[92]
- *Dallas Five Mile Creek Greenbelt*[93]
- *American Forests Tree Equity Score*[94]
- *Urban Forest Initiative* (Colorado)[95]
- *Wildfire Ready Watersheds Program* (Colorado)[96]
- *Floodplains by Design* (Washington)[97]
- *Denver Swift Implementation of Green Infrastructure (SIGI)* (Colorado)[98]

Implementing the Roadmap

Advancing this Regional Action Roadmap and each priority strategy will require regional leadership and resourcefulness. **In a shifting resource environment, leading organizations across South Central Texas will need to pioneer new ways to achieve impact, from stacking diverse funding and financing and building public-private partnerships to leveraging nonfinancial resources like technical assistance and data sharing to build regional capacity.** How these efforts are communicated and marketed to stakeholders matters as much as how they are funded. In Texas, resilience projects can achieve broad support when framed around risk reduction, cost savings, and economic competitiveness. Strategic communication that speaks to these priorities will be essential to building the buy-in needed to scale solutions across the region.

Resources for Resilience

Delivering on the actions identified in this Roadmap will require sustained investment to move from planning to implementation. South Central Texas organizations can draw on a wide range of funding and financing resources to support resilience efforts through public, private, and philanthropic avenues. However, securing resources can be challenging given increasing competition, evolving federal and state funding priorities, and limited local capacity or knowledge in seeking funds. This landscape presents both an opportunity and a challenge to (1) look beyond traditional resilience programs, as many funding opportunities can support resilience outcomes through investments in infrastructure, transportation, water, public health, economic development, and community development; and (2) stack multiple sources that meet project needs across different phases.

Available resources generally fall into two categories: funding (non-repayable) and financing (repayable). The following sections provide an overview of funding and financing sources that can help advance resilience efforts in South Central Texas.

Funding programs

Federal programs

Federal grants have traditionally served as a primary source of funding for resilience planning, hazard mitigation, and infrastructure improvements.[99] While these programs can provide significant investment, they are often highly competitive and may require matching funds, staff capacity, or alignment with federal priorities. Several FEMA programs offer significant funds for resilience projects. These FEMA programs, such as the Building Resilient Infrastructure and Communities (BRIC) program and the Hazard Mitigation Grant Program, which the Texas Division of Emergency Management (TDEM) coordinates in Texas, generally require projects to be included in an adopted hazard mitigation plan. Many counties in the region build their hazard mitigation plans through their council of governments. Organizations seeking resilience funding should incorporate priority projects into these plans well before a funding cycle opens to preserve eligibility for future federal investment and to build a project pipeline. However, these organizations should not rely solely on federal grant availability, as federal grants are competitive and their availability has become increasingly uncertain.

State programs

State programs provide important opportunities to support resilience planning and implementation, particularly when federal funding availability fluctuates. State agencies and infrastructure funding programs can provide both financial resources and technical assistance while helping align projects with state priorities. In Texas, agencies such as the Texas General Land Office and the Texas Water Development Board play important roles in supporting resilience, flood mitigation, and infrastructure investments. The Texas Energy Fund, administered by the Public Utility Commission of Texas, also supports weatherization and grid resilience. One successful example of a Texas community leveraging state funding for resilience comes from Caldwell County. Using a grant from the Texas Water Development Board's Flood Infrastructure Fund, Caldwell County completed a flood hazard and stormwater planning assessment to identify high-priority flood risk areas across the county.[100]

Philanthropic funding

Foundations and philanthropic organizations can support planning, capacity building, community engagement, and pilot projects. These funding sources are often more flexible than government programs and can help advance innovative or community-led efforts. Participants in Accelerator convenings noted that philanthropic investment can play a catalytic role in the early stages of planning and implementation, paving the way to attract public and private funding as efforts develop. Access to funding usually requires established relationships and partnerships with foundations or philanthropic organizations.

Private investment and public-private partnerships

Private capital, including public-private partnerships and impact investment, can support large-scale resilience projects and other initiatives with identifiable economic benefits. These approaches can help leverage private-sector expertise and resources but often require clearly defined project benefits, revenue streams, or risk-sharing arrangements. Access to private funding usually requires established relationships and partnerships with private partners.

Public-private partnerships, in particular, have been successfully used to accelerate community resilience efforts across the country and might be models for Texas, such as the IBHS FORTIFIED initiative in Alabama that funded the installation of wind-resistant roof upgrades, as well as the partnership between AT&T and the city of Longmont, Colorado, where modeling and data sharing improved efforts to protect residents from extreme heat. Accelerator participants emphasized that public-private partnerships in South Central Texas could be particularly relevant for companies focused on HVAC, internet of things and smart-home technology, health care, and construction, as well as companies needing to improve supply chain resilience.

Financing mechanisms

Private capital or financing is best used to complement or leverage public and philanthropic funding, and vice versa. Most projects will be funded via a capital stack of multiple sources. Private capital differs fundamentally from funding: it requires repayment through, for example, rates, fees, taxes, assessments, or contract payments. This distinction means that investors are ultimately looking for assets that generate reliable revenue, protect existing revenue, or reduce costs enough to justify investment. Projects that achieve this are deemed "financeable," "bankable," or "investable." In other words, they have a credible way to pay the money back.

Green bank financing

Green banks are typically public, quasi-public, or nonprofit entities that use public or mission-driven capital to draw in private coinvestment for projects. Green bank financing is not limited to public-sector projects; it is designed for projects that might otherwise struggle to attract conventional lenders, such as nonprofit- or business-sponsored projects. A financeable project for a green bank is generally a credible project with an energy benefit, resilience benefit, or both, and a repayment path.

The Clean Energy Fund of Texas is the state's first and only green bank.[101] The nonprofit lends to businesses and homeowners, providing capital for infrastructure upgrades that enhance efficiency and resilience. For example, its *Texas Energy Relief and Resilience Fund* finances home improvements, such as new roofs, more efficient HVAC systems, and storm windows.[102]

Community development financial institution loans

Community development financial institutions (CDFIs) are mission-driven lenders certified by the U.S. Department of the Treasury. They often offer more flexible financing terms than conventional banks and typically finance projects led by businesses, nonprofits, or community organizations. Generally, these projects should have a creditworthy borrower, a documented community benefit, and a clear explanation of why conventional financing is not a fit for the project. In Texas, *LiftFund*, a CDFI based in San Antonio, provides disaster-relief loans for small businesses, and *Business and Community Lenders* (BCL), based in Austin, offers lending for community-focused infrastructure.

On-bill and utility financing

On-bill and utility financing refers to financing that is repaid through a customer's utility bill, often paired with efficiency, resilience, or weatherization upgrades. This type of financing is available to utility customers, either residential or commercial. This type of financing depends on a utility's willingness to administer it, and not every utility offers on-bill financing. Since much of Texas has a competitive retail market, on-bill financing is offered mainly through municipal utilities and electric cooperatives. In Texas, Austin Energy offers zero percent financing on air-conditioning system replacement, tied to its *Weatherization Assistance* program.

Commercial property assessed clean energy (C-PACE) financing

Commercial property assessed clean energy (C-PACE) offers financing for efficiency and resilience upgrades repaid through a voluntary property assessment. It is available for owners of existing commercial, industrial, nonprofit, and multifamily residential properties. C-PACE financing is only available to local governments that have first adopted a C-PACE program. Third-party financiers typically provide capital, which is administered by the local government. Since Texas adopted statewide legislation to enable PACE programs in 2013, a number of counties and municipalities in South Central Texas have adopted PACE programs, including Hays County, Bastrop County, Travis County, Caldwell County, Comal County, Guadelupe County, the city of San Antonio, the city of Converse, and many more.[103]

Resilience bonds

Bonds for resilience projects can take several forms. One form is insurance-linked securities, such as catastrophe bonds. For a catastrophe bond, investors provide money up front and earn a return, but if a previously specified disaster occurs, some or all of that money is redirected to cover losses instead of

being paid back. Catastrophe bonds do not inherently reduce vulnerabilities but can be structured so that rebuilding is tied to resilience. In 2025, the North Carolina Insurance Underwriting Association became the first insurer to issue a catastrophe bond tied to resilience when it issued a $600 million bond that provides incentives for homeowners to install IBHS FORTIFIED roofs.[104]

Another form of resilience bond is a traditional municipal bond for resilience infrastructure where repayment is tied to measured performance. Traditional bonds can be a challenging tool for resilience projects. It can be difficult to quantify the economic benefits of resilience projects, and in comparison to other types of infrastructure, such as toll roads, they frequently do not produce a direct revenue stream. However, there are innovative strategies to address this challenge, such as repayment based on avoided losses. Energy resilience projects, such as microgrids, may be a better fit for bonds than other forms of resilience infrastructure because they can generate revenue or cost savings.

Harris County, Texas, offers an example of innovative bond financing for resilience. In 2018, voters approved a $2.5 billion bond for flood protection, including watershed-scale restoration, infrastructure upgrades, and home buyouts.[105] Central to the bond's financing model is the idea that protecting the county's property tax base from flood losses helps maintain the fiscal ability to repay the bond over time, showing how quantifiable risk reduction investments can provide a strong rationale for public financing.

Environmental impact bonds are another form of outcome-linked financing. They provide upfront capital and tie investor returns to independently verified performance. These bonds require a public authority or utility able to issue debt, collect revenue, and support third-party verification. Washington, DC, offers one example of environmental impact bonds. DC Water issued a $25 million environmental impact bond to manage stormwater runoff, with investor returns linked to project performance.[106]

Beneficiary-pays financing

Beneficiary-pays, also known as aggregated financing, is a model where multiple organizations that benefit from a project share its cost. Investors pay the upfront cost, so a project can start immediately, and each beneficiary repays a share over time based on what it gains. This model is especially useful for multipartner and regional-scale projects. This financing model requires a nonprofit or other intermediary to serve as its financial sponsor and a way to quantify who benefits and by how much. An example of this comes from California, where the Forest Resilience Bond funded forest restoration for wildfire prevention upstream of a water-supply source. Water utilities, hydropower operators, insurers, local governments, philanthropic organizations, and investment firms bundled $4 million in financing, which was recovered through contractual payments based on how much each organization benefited from the project. For example, the Yuba Water Agency repaid $1.5 million because the forest restoration protected its source watershed.[107] While the financing structure is not the same, San Antonio's Edwards Aquifer Protection Program is a strong regional example of a mechanism where those who benefit contribute funds through a voter-approved sales tax that protects land over the recharge zone to safeguard the water supply.

Federal financing

Some federal programs offer low-interest financing, such as the *Clean Water State Revolving Fund* and the *Drinking Water State Revolving Fund*, both of which are managed by the Texas Water Development Board and support water

infrastructure projects. These financing programs function similarly to grants: they are seeded by federal funding, offer zero-interest loans and principal forgiveness, and are given through a competitive application process.

State financing

The state can also play a role in project financing. For example, the Texas Water Development Board's *State Water Implementation Fund for Texas* and the *Texas Water Development Fund* programs offer low-interest loans for water and flood infrastructure. Eligible applicants include governments, public agencies and authorities, and nonprofit water supply corporations.

Nonfinancial resources

While funding is an essential ingredient for resilience implementation, nonfinancial resources like technical assistance, data and planning tools, training opportunities, and peer networks are equally important. These nonfinancial resources are especially useful for helping communities understand risks and solutions, as well as building collaboration mechanisms and aligning priorities.

In partnership with community organizations, academia becomes a force multiplier—it amplifies community expertise with data, research capacity, and tools to extend impact beyond what either could accomplish independently.

Local examples of nonfinancial resources already being marshaled for resilience include the UT Austin's Planet Texas 2050, a research challenge that has brought together over 150 researchers from across the university to advance interdisciplinary research on resilience and codesign adaptive strategies with stakeholders and communities. Other examples include the Texas A&M Forest Service's Texas Wildfire Risk Explorer and the Texas A&M Agrilife Extension.

Messaging Resilience

To build broad-based support, regional organizations should present their resilience projects in terms of what each audience already works toward. Since resilience challenges rarely stay in one sector, there will be some spillover. Extreme heat is a public health, workforce, and energy reliability issue. Flooding affects housing stability, transportation, and business continuity. Wildfire affects land stewardship, insurance markets, and water supply. Projects become more fundable when organizations spell out these overlaps and show how one investment moves several priorities forward. Tree canopy and green stormwater projects are one example. They can be presented as heat-health interventions, flood mitigation, neighborhood revitalization, and local workforce development all at once. The following potential pairings of audiences with framings illustrate which benefits might be most relevant:

- For public agencies, focus on lower emergency costs and better-protected infrastructure.
- For businesses highlight workforce productivity, fewer operational disruptions, and continued insurability.
- For philanthropic organizations emphasize better health outcomes and gains for vulnerable communities.
- For academic partners highlight research, data, and evaluation opportunities.
- For community groups describe safer neighborhoods and lower household costs.

In practice, this means building one clear regional story that each organization can adapt, not a single message for everyone. Organizations should put together short, audience-specific project briefs that lead with the outcomes each partner cares most about. Those briefs should back up claims with local data where possible, such as avoided losses, health impacts, jobs supported, and return on investment.

Choosing messengers matters as much as the message. Stories from affected residents and businesses can make the stakes concrete. Business leaders often carry more weight with private-sector peers, health professionals with health funders, and trusted local networks with residents. Organizations that coordinate their messaging, share proof points, and point to the cobenefits of their projects will be better able to attract a range of partners. They will also be better positioned to combine public, private, and philanthropic resources and to present the region's resilience agenda as an investment in its long-term prosperity.



How resilience efforts are messaged to community members can shape the outcome of those efforts. Specific messages should be tailored to each audience to build the most buy-in.
Source: Libby Zemaitis

Charting a Path Forward

This Roadmap covers the five key action areas and eight priority strategies that represent shared cross-sector priorities for strengthening regional resilience to extreme heat, wildfire, and flooding. When implemented, they will move South Central Texas toward a future defined by resilient growth despite increasing risk, with communities and private-sector partners across the region benefiting from connectivity, insurability, and overall economic stability.

As the Accelerator enters its second year, the work will shift from planning to implementation as the cohort reconvenes to advance one or more priority strategies presented in this Roadmap. The Accelerator will foster the necessary collaboration across the public, private, community, nonprofit, and academic sectors to ensure selected strategies are implemented holistically to achieve regional impact. The remaining strategies are intended to be used as a starting point for the cohort and other regional partners, helping to catalyze action and advance implementation as needs and opportunities evolve.

Beyond Texas, the Accelerator will connect leaders across regions to collaborate on shared learning, partnership, and policy opportunities as the effort continues to expand across the United States. C2ES will also elevate local insights to federal and state policymakers to create the enabling conditions for communities across the country to thrive amid growing climate hazards and extreme weather events.

South Central Texas has weathered extreme heat, wildfire, and flooding events before, and it will again. The strategies in this Roadmap address these challenges head-on—and they did not emerge from outside experts or top-down mandates. They came from the leaders, businesses, and communities who call South Central Texas home. Now, these regional leaders have a path forward to face the next disaster prepared, together, and on the region's own terms.

Appendix A: Organizations Participating in the 2026 South Central Texas Accelerator

360 Energy Savers
AECOM
American Forests
Apple Inc.
Ascension Health
Austin Area Research Organization
Austin Emergency Management
Bandera Electric Cooperative
Bastrop County Cares
Caldwell County Emergency Management
Capital Area Council of Governments
Centre for Public Impact
Central Texas Building Trades, IBEW Local 520
Central Texas Climate Philanthropy Collaborative
Chubb
City of Austin - Office of Climate Action & Resilience
City of Kyle - Office of Emergency Management
City of Lockhart
City of San Antonio - Department of Resilience & Sustainability, Climate Ready Neighborhood Network
City of San Antonio - Department of Resilience & Sustainability
City of San Marcos
Community Coalition for Health
Corridor Council
CPS Energy
Credit Human
Cynthia and George Mitchell Foundation
Environment Texas
Freese & Nichols
Go Austin/Vamos Austin (GAVA)
Greater Edwards Aquifer Alliance
Green Workforce Collaborative
Hays County Office of Emergency Services (OES)
H-E-B
Hill Country Alliance
Impact Guild
Insurance Information Institute
International Code Council

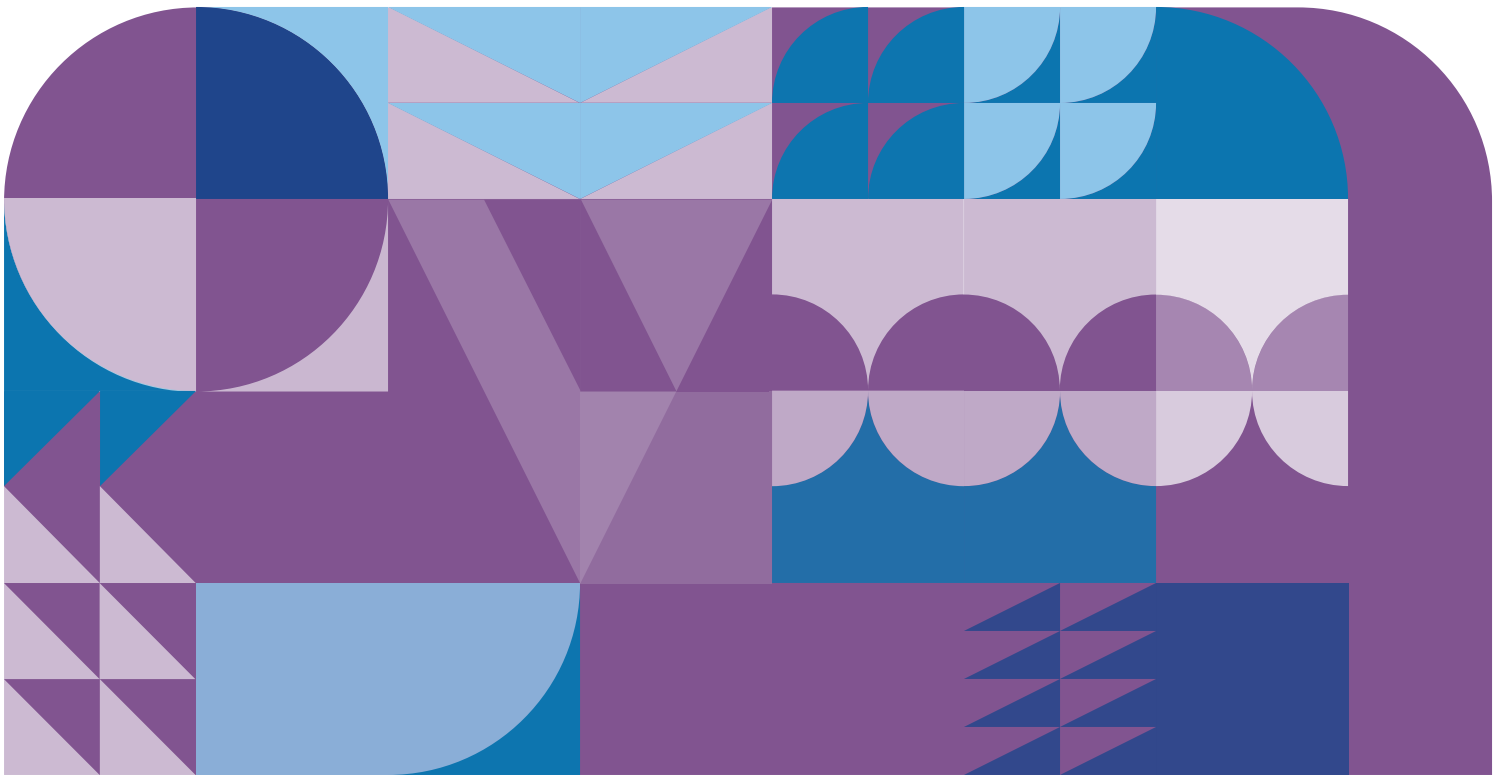
Pflugerville Fire Department/Travis County ESD No. 2
Public Citizen
Rebuilding Together Austin San Antonio
Samsung Austin Semiconductor
San Antonio River Authority
San Antonio Water System
Schreiner University
South Central Partnership for Energy Efficiency as a Resource (SPEER)
Southwest Research Institute (SwRI)
Texan by Nature
Texas Center for Local Food
Texas Department of Transportation
Texas Energy Poverty Research Institute (TEPRI)
Texas Impact
Texas State University - Department of Geography & Environmental Studies
Texas State University - Institute for Government Innovation
Trane Technologies
Travis County - Environmental Resilience Program
Travis County - Office of Emergency Management
University of Texas at Austin - LBJ School of Public Affairs
University of Texas at Austin - Moody College of Communication
University of Texas at Austin - School of Architecture
University of Texas at San Antonio
U.S. Green Building Council - TX
William R. Sinkin Eco Centro - San Antonio College
WSB
YMCA (Greater Austin)
Sierra Club Lone Star Chapter
Urban Land Institute Austin Council

Appendix B: Snapshot of Select Funding Programs

Program (Organization)	Program Type	Purpose	Available Funding	Eligible Applicants & Geographies	Timing
Climate Smart Communities Initiative Grant (Climate Smart Communities Initiative)	Philanthropic	Supports community-driven climate resilience planning and implementation through partnerships among local governments, community-based organizations, and adaptation practitioners.	$75,000 – $115,000	Team of an adaptation practitioner, community-based organization, and local/regional government. Applicants nationwide are eligible.	Applications typically due in March
Building Resilient Infrastructure and Communities (BRIC) (FEMA)	Federal	Provides grants to communities to implement hazard mitigation activities on infrastructure before disasters occur.	Varies by project. Recent BRIC awards have ranged from planning grants under $1 million to major infrastructure projects exceeding $50 million	Communities, local governments, cities, townships, counties, special district governments, and tribal nations apply through TxDEM. Applicants nationwide are eligible.	Annual, typically opens in spring and closes in summer
Flood Mitigation Assistance (FMA) Program (FEMA)	Federal	Provides grants for projects that reduce or eliminate the risk of repetitive flood damage to buildings insured by the National Flood Insurance Program.		States, territories, Tribes, and local governments; projects must benefit NFIP-insured properties. Applicants nationwide are eligible.	Typically annual; recent applications due in summer
Flood Infrastructure Fund (FIF) (Texas Water Development Board)	State	Provides grants and loans for flood control, flood mitigation, and drainage projects.	Grants and 0% loans available; recent funding cycles have exceeded $300 million statewide	Cities, counties, drainage districts, river authorities, and other eligible political subdivisions. Applicants statewide in Texas are eligible.	Funding cycles vary
SA Climate Ready Community Action Fund Business and Neighborhood & Community Grants Program (City of San Antonio)	Local	Provides grants to projects that enhance community sustainability and foster resilience.	Up to $20,000	Community organizations, nonprofits, faith-based organizations, neighborhood groups, and local businesses within San Antonio. Applicants in San Antonio are eligible.	Annual

Program (Organization)	Program Type	Purpose	Available Funding	Eligible Applicants & Geographies	Timing
TxCDBG Community Development Fund (Texas Department of Agriculture)	State	Provides grants for rural community planning and small infrastructure projects, including water, wastewater, stormwater, and street infrastructure.	Up to $750,000	Eligible non-entitlement cities and counties, generally rural communities. Applicants statewide in Texas are eligible.	Every two years with region-specific deadlines
Texas Resilient Landscapes Initiative (Texas A&M Forest Service)	State	Provides grants to support reforestation efforts in areas that have experienced tree damage due to natural disasters within the last 10 years.	Up to $80,000	Non-federal, non-industrial forest and woodland landowners. Applicants statewide in Texas are eligible.	Typically annual; recent applications opened in December and closed in January
Hazard Mitigation Grant Program (FEMA)	Federal	Provides grants to communities to implement hazard mitigation activities on infrastructure after disasters occur.	Varies by disaster declaration	State, local, Tribal, and territorial governments. Applicants nationwide in areas covered by a disaster declaration are eligible.	Available only following presidential disaster declarations
Food and Climate Equity Grants (City of Austin)	Local	Provides funding for community-led solutions that enable transformative change in the areas of food, climate, and resilience.	Up to $3,000	Nonprofits, schools, businesses, HOAs, faith organizations, grassroots groups, and other community-based entities. Applicants in Austin are eligible.	Annual
State Fire Assistance for Mitigation – Plains Prescribed Fire Grant (Texas A&M Forest Service)	State	Provides grants for prescribed burning to reduce hazardous fuels in and around communities.	Up to $30/acre for a maximum of 800 acres	Private landowners in eligible regions using certified prescribed burn managers. Applicants statewide in Texas are eligible.	Annual
AgPro Grant Program (Texas Department of Agriculture)	State	Provides funding to help Texas producers improve, expand, and strengthen their agricultural operations through strategic investments in equipment, infrastructure, and efficiency.	$5,000 – $500,000	Texas agricultural producers engaged in commercial production. Applicants statewide in Texas are eligible.	Funding rounds open in spring
Emergency Watershed Protection (EWP) Program (USDA)	Federal	Offers technical and financial assistance to help local communities relieve imminent threats to life and property caused by floods, fires, windstorms and other natural disasters that impair a watershed.	Cost-share assistance; generally covers up to 75% of project costs (up to 90% in some cases)	Cities, counties, conservation districts, Tribal governments, and other eligible public sponsors. Applicants nationwide are eligible.	Rolling following qualifying watershed emergencies or disasters

Program (Organization)	Program Type	Purpose	Available Funding	Eligible Applicants & Geographies	Timing
Community Disaster Resilience Innovation Accelerator (Verizon)	Private sector	Designed to identify and support startups developing next-generation solutions that strengthen community resilience before, during, and after natural disasters. Building on the capabilities of Verizon Frontline and Verizon Innovation Labs, this program invites innovators to create technologies that provide preemptive warnings, hazard mitigation, and robust connectivity in the face of natural disaster events, leveraging Verizon's 5G expertise to protect lives and strengthen community resilience.	$50,000	Startups. Applicants nationwide are applicable.	Annual



Endnotes

1 Diego Medel, "The Austin/San Antonio Megaregion Is Coming. Are We Ready?," *San Antonio Report*, December 23, 2025, *https://sanantonioreport.org/listen-austin-san-antonio-megaregion-is-coming-8-3-million-residents-bigcitysmalltown/*

2 Maia Pandey, "Texas Is Not Prepared for Austin-San Antonio Population Boom, Experts Say," *The Texas Tribune*, November 9, 2023, *https://www.texastribune.org/events/2023/11/09/san-antonio-austin-growth-development/*.

3 Christopher Adams, "New Population Estimates Show Georgetown, Kyle Are Fastest-Growing Cities in the Country," *KXAN Austin*, July 2, 2024, *https://www.kxan.com/news/texas/new-population-estimates-show-georgetown-kyle-are-fastest-growing-cities-in-the-country;* "Georgetown, TX Population (2025): 106,907," *Every City in the USA*, accessed September 28, 2026, *https://www.everycityintheusa.com/cities/georgetown-tx/*.

4 Mose Buchele, "Climate Scientists Have Predicted Greater Flooding in Texas for Decades. It's Happening Now," *Houston Public Media*, July 20, 2026, *https://www.houstonpublicmedia.org/articles/news/energy-environment/2026/07/20/557431/floods-texas-weather-climate-change-warming-air-gulf-water/*; "Precipitation," *The Meadows Center Climate Dashboard*, accessed September 28, 2026, *https://www.meadowscenter.txst.edu/climate/climatedashboard/precipitation.html*.

5 *Improving Small Business Disaster Response and Recovery* (Milken Institute), *https://milkeninstitute.org/content-hub/insights/improving-small-business-disaster-response-and-recovery*.

6 *Economic Impact Analysis of Central Texas Floods* (Texas A&M University, 2026), *https://oaktrust.library.tamu.edu/server/api/core/bitstreams/e0ea33a1-dbb3-4fbb-b0d4-9866738c0d5c/content*.

7 "Hazard Mitigation Program Dashboard," Texas Division of Emergency Management, accessed September 28, 2026, *https://app.powerbigov.us/view?*.

8 "Wildfire Preparedness," *Get Ready Central Texas*, City of Austin, accessed September 28, 2026, *https://www.austintexas.gov/ready-central-texas/wildfire-preparedness*.

9 *Austin Future Climate Report* (City of Austin and University of Texas Climate Center, 2024), *https://www.austintexas.gov/sites/default/files/files/Sustainability/Climate/UTCCC%20Austin%20Future%20Climate%20Report_2024-06-03_V1p9.pdf*.

10 "Wildfire Preparedness," City of Austin, *Get Ready Central Texas*, accessed September 28, 2026, *https://www.austintexas.gov/ready-central-texas/wildfire-preparedness*.

11 "Wildfire Preparedness," *Get Ready Central Texas*, accessed September 28, 2026, *https://www.austintexas.gov/ready-central-texas/wildfire-preparedness*.

12 "Climate Mapper," *Climate Toolbox*, accessed September 28, 2026, *https://climatetoolbox.org/tool/climate-mapper*.

13 *Vulnerability Risk Assessment* (City of San Antonio, SA Climate Ready), *https://www.sanantonio.gov/Portals/0/Files/Sustainability/SAClimateReady/Vulnerability-Risk-Assessment.pdf*.

14 *Texas Climate Report: 1900-2036, 2021 Update* (Texas A&M University, 2021), *https://climatexas.tamu.edu/files/ClimateReport-1900to2036-2021Update*.

15 "Texas Economy Summer Heat Climate Change Dallas Fed," *The Texas Tribune*, October 18, 2023, *https://www.texastribune.org/2023/10/18/texas-economy-summer-heat-climate-change-dallas-fed/*.

16 "Independence Day Flash Flood Tragedy in Texas Causes an Estimated $18 Billion to $22 Billion in Total Damage and Economic Loss," *AccuWeather*, July 2025, *https://www.accuweather.com/en/press/independence-day-flash-flood-tragedy-in-texas-causes-an-estimated-18-billion-to-22-billion-in-total-damage-and-economic-loss/1792253*.

17 "Home," *Alamo Area Climate and Energy Action Plan*, accessed October 13, 2026, *https://alamoareaclimateplan.com*.

18 "Home," *Bandera Road Watershed Management Project*, accessed October 13, 2026, *https://www.brwm-tx.org*.

19 "Flood Planning Regions," *Texas Water Development Board*, accessed October 13, 2026, *https://www.twdb.texas.gov/flood/planning/regions/index.asp*.

20 "Home," *Texas One Water Hub*, accessed October 13, 2026, *https://www.txonewaterhub.org*.

21 "Home," *Aquifer Alliance*, accessed October 13, 2026, *https://aquiferalliance.org*.

22 "Home," *Southeast Florida Regional Climate Change Compact*, accessed October 13, 2026, *https://southeastfloridaclimatecompact.org*.

23 "Home," *Puget Sound Climate Preparedness Collaborative*, accessed October 13, 2026, *https://pugetsoundclimate.org*.

24 "Home," *Hudson Valley Flood Resilience Network*, accessed October 13, 2026, *https://www.hvfloodresiliencenetwork.org*.

25 "Austin Resilience Network (ARN)," *City of Austin Office of Homeland Security and Emergency Management*, accessed October 13, 2026, *https://www.austintexas.gov/emergency-management/austin-resilience-network-arn*.

26 "About," Blanco River Regional Recovery Team, accessed October 13, 2026, *https://br3t.org/about/*.

27 "Home," Bastrop County Long-Term Recovery Team, accessed October 13, 2026, *https://www.bcltrt.org*.

28 "Resilience Hubs," San Antonio Sustainability, accessed October 13, 2026, *https://sasustainability.com/category/build-resilient-infrastructure/resilience-hubs*.

29 "Home," Texas Ready, accessed October 13, 2026, *https://texasready.gov*.

30 "Home," ATXFloods, accessed October 13, 2026, *https://www.atxfloods.com*.

31 "Communities," Warn Central Texas, accessed October 13, 2026, *https://warncentraltexas.org/communities/*.

32 "San Antonio Heat Resilience Playbook," City of San Antonio, accessed October 13, 2026, *https://www.sa.gov/files/assets/main/v/2/sustainability/documents/shared/hrp-abridged-version.pdf*.

33 "Turn Around Don't Drown Public Awareness Campaign," Federal Emergency Management Agency (FEMA), accessed October 13, 2026, *https://www.fema.gov/case-study/turn-around-dont-drown-public-awareness-campaign*.

34 "Navigation Center," United Way for Greater Austin, accessed October 13, 2026, *https://unitedwayaustin.org/navigation-center/*.

35 "Home," Texas A&M AgriLife Extension Service, accessed October 13, 2026, *https://agrilifeextension.tamu.edu*.

36 "Climate Resilience," Go Austin/Vamos Austin, accessed October 13, 2026, *https://*

goaustinvamosaustin.org/climate-resilience.

37 "Home," Wildfire Coalition, accessed October 13, 2026, https://www.wildfirecoalition.org.

38 "About," Larimer Connects, accessed October 13, 2026, https://www.larimer.gov/emergency/larimer-connects/about.

39 "Inclusive Communications," King County Office of Emergency Management, accessed October 13, 2026, https://kingcounty.gov/en/dept/executive-services/governance-leadership/emergency-management/teams-committees/inclusive-communications.

40 "Adapting Operations to a Changing Climate," Centre for Public Impact, July 2026, https://centreforpublicimpact.org/wp-content/uploads/2026/07/Adapting-Operations-to-a-Changing-Climate.pdf.

41 "Planet Texas 2050," Bridging Barriers, The University of Texas at Austin, accessed October 13, 2026, https://bridgingbarriers.utexas.edu/planet-texas-2050.

42 "Home," UT City CoLab, accessed October 13, 2026, https://www.utcitycolab.org.

43 "Climate Adaptation," San Antonio Sustainability, accessed October 13, 2026, https://sasustainability.com/category/climate-adaptation.

44 "Advanced Technology," Xcel Energy, accessed October 13, 2026, https://co.my.xcelenergy.com/s/outage-safety/wildfires/advanced-technology.

45 "Austin Energy Announces Full Deployment of AI-Driven Early Wildfire Detection System," Austin Energy, 2024, https://austinenergy.com/about/news/news-releases/2024/Austin-Energy-announces-full-deployment-of-AI-driven-Early-Wildfire-Detection-System.

46 "Love My Air," City and County of Denver, accessed October 13, 2026, https://www.denvergov.org/Government/Agencies-Departments-Offices/Agencies-Departments-Offices-Directory/Public-Health-Environment/Environmental-Quality/Air-Quality/Love-My-Air.

47 "Waze for Hurricanes: Mapping Floods in Real Time," Georgia Institute of Technology Resilience Research, accessed October 13, 2026, https://resilience.research.gatech.edu/feature/waze-hurricanes-mapping-floods-real-time.

48 "Hurricane Season Preparedness," AT&T, 2026, https://about.att.com/story/2026/hurricane-season-preparedness.html.

49 "About," *The Corridor*, accessed September 28, 2026, https://www.thecorridor.org/about.

50 "Home," Switch Is On, accessed October 13, 2026, https://www.switchison.org.

51 "Weatherization," Austin Energy, accessed October 13, 2026, https://austinenergy.com/energy-efficiency/rebates-incentives/residential/home-improvements/weatherization.

52 "Casa Verde Weatherization Assistance Program," CPS Energy, accessed October 13, 2026, https://www.cpsenergy.com/casaverde.

53 "Wildfire Division," City of Austin, accessed October 13, 2026, https://www.austintexas.gov/fire/wildfire.

54 "Home," Austin Disaster Relief Network Disaster Volunteer Coordination Center, accessed October 13, 2026, https://www.atxdvcc.org.

55 "Climate Resilience," Go Austin/Vamos Austin, accessed October 13, 2026, https://goaustinvamosaustin.org/climate-resilience.

56 "Texas Homeowner Initiatives," Clean Fund Texas, accessed October 13, 2026, https://

cleanfundtx.org/texas-homeowner-initiatives/.

57 "Home," Resilient Home America, accessed October 13, 2026, https://resilienthomeamerica.org.

58 "Home," Impact Disaster Fund Disaster Recovery, accessed October 13, 2026, https://disaster-recovery.impactdf.org.

59 "Wildfire Risk Reduction Grants for Homeowners," Climate and Wildfire Institute, accessed October 13, 2026, https://www.resilienthomefund.org.

60 "The Resilient Delta Fund," Resiliency, accessed October 13, 2026, https://resiliency.com/the-resilient-delta-fund.

61 "Resilient Retrofits," New York State Homes and Community Renewal, accessed October 13, 2026, https://hcr.ny.gov/resilient-retrofits.

62 "After the Marshall Fire, Builders Played a Central Role in Shaping Resilient Rebuilds," *Epicenter Insights*, accessed September 28, 2026, https://www.epicenterinsights.com/the-weekly-after-the-marshall-fire-builders-played-a-central-role-in-shaping-resilient-rebuilds/.

63 "Home," Build San Antonio Green, accessed October 13, 2026, https://www.buildsagreen.org.

64 "Wildland-Urban Interface Code," City of Austin, accessed October 13, 2026, https://www.austintexas.gov/fire/wildland-urban-interface-code.

65 "Home," Lone Star PACE, accessed October 13, 2026, https://www.lonestarpace.com.

66 "Home," Hill Country Alliance, accessed October 13, 2026, https://hillcountryalliance.org.

67 "Home," Wildfire Preparedness, accessed October 13, 2026, https://wildfireprepared.org.

68 "Home," Wildfire Partners, accessed October 13, 2026, https://wildfirepartners.org.

69 "Colorado Wildfire Resiliency Code," Colorado Division of Fire Prevention and Control, accessed October 13, 2026, https://dfpc.colorado.gov/colorado-wildfire-resiliency-code.

70 "Clean and Resilient Building Codes," New York State Energy Research and Development Authority (NYSERDA), accessed October 13, 2026, https://www.nyserda.ny.gov/All-Programs/Clean-Resilient-Building-Codes.

71 Rebekah F. Ward, "ERCOT Breaks Record for Power Demand During Extreme Texas Heat. Here's How the Grid Held Up," *Houston Chronicle*, July 22, 2026, https://www.houstonchronicle.com/business/energy/article/ercot-power-record-heat-texas-summer-22355892.php.

72 The University of Texas at Austin Energy Institute, *The Timeline and Events of the February 2021 Texas Electric Grid Blackouts* (The University of Texas at Austin Energy Institute, 2021), https://energy.utexas.edu/ercot-blackout-2021.

73 Max Massey, "Before Noon, Other Huge Sections of the City Will Be Out of the Boil Water Notice, SAWS CEO Says," KSAT, February 21, 2021, https://www.ksat.com/news/local/2021/02/21/before-noon-other-huge-sections-of-the-city-will-be-out-of-the-boil-water-notice-saws-ceo-says/

74 S.E. Jenkins, "250-Acre Hill County Wildfire Destroys 5 Homes; 20% Contained," *CBS Texas*, July 26, 2023, https://www.cbsnews.com/texas/news/crews-battle-250-acre-hill-county-wildfire-fire-0-contained/.

75 "Infrastructure Resilience Planning Framework (IRPF)," Cybersecurity and Infrastructure Security Agency (CISA), accessed October 13, 2026, https://www.cisa.gov/resources-tools/

resources/infrastructure-resilience-planning-framework-irpf.

76 "Vulnerability Self-Assessment Tool (VSAT)," U.S. Environmental Protection Agency, accessed October 13, 2026, *https://vsat.epa.gov/vsat/*.

77 "Smart Grid," CPS Energy, accessed October 13, 2026, *https://www.cpsenergy.com/en/about-us/programs-services/smart-grid.html*.

78 "Battery Storage Program," Bandera Electric Cooperative, accessed October 13, 2026, *https://www.banderaelectric.com/energy-services/solar-battery/battery-storage/battery-storage-program/*.

79 "Microgrids," Colorado Department of Local Affairs, accessed October 13, 2026, *https://dlg.colorado.gov/microgrids*.

80 "City of Tempe Microgrids Masterplan & Resilient Energy Hubs," Arizona Forward, accessed October 13, 2026, *https://arizonaforward.org/portfolio/city-of-tempe-microgrids-masterplan-resilient-energy-hubs/*.

81 "Aquifer Information," *Edwards Aquifer Research and Data Center*, Texas State University, accessed September 28, 2026, *https://www.eardc.txst.edu/aquifer-information.html*.

82 "Home," Austin Environmental Directory, accessed October 13, 2026, *https://www.environmentaldirectory.info*.

83 "Green Infrastructure Strengths & Gaps Assessment," City of Austin, 2021, *https://austintexas.app.box.com/v/COA-GISGA-2021*.

84 "Conservation Lands Inventory," Texas Land Trust Council, accessed October 13, 2026, *https://texaslandtrustcouncil.org/what-we-do/conservation-lands-inventory/*.

85 "Home," Great Springs Project, accessed October 13, 2026, *https://greatspringsproject.org*.

86 "HEB Trees for Texans," Texan by Nature, accessed October 13, 2026, *https://texanbynature.org/projects/heb-trees-for-texans/*.

87 Nature-Based Solutions for Flood Resilience in Texas (Texas Water Development Board, 2026), *https://www.twdb.texas.gov/flood/planning/resources/doc/NBS-Flood-Resilience-Guidance-Manual.pdf*.

88 "Green Infrastructure Design Sets," Texas A&M AgriLife Extension Service, accessed October 13, 2026, *https://agrilife.org/gift/gift-resources/green-infrastructure-design-sets/*.

89 "Low Impact Development," San Antonio River Authority, accessed October 13, 2026, *https://www.sariverauthority.org/services/sustainability/low-impact-development/*.

90 "Home," TreeFolks, accessed October 13, 2026, *https://www.treefolks.org*.

91 "Home," Bexar Branches Alliance, accessed October 13, 2026, *https://bexarbranches.org*.

92 "Home," Texan by Nature, accessed October 13, 2026, *https://texanbynature.org*.

93 "Five Mile Creek Greenbelt," Trust for Public Land, accessed October 13, 2026, *https://www.tpl.org/our-work/five-mile-creek-greenbelt*.

94 "Tree Equity Score," American Forests, accessed October 13, 2026, *https://www.americanforests.org/tools-research-reports-and-guides/tree-equity-score/*.

95 "Urban Forest Initiative," Downtown Denver Partnership, accessed October 13, 2026, *https://www.downtowndenver.com/ufi*.

96 "Home," Wildfire Ready Watersheds, accessed October 13, 2026, *https://www.wildfirereadywatersheds.com*.

97 "Home," Floodplains by Design, accessed October 13, 2026, *https://floodplainsbydesign.org*.

98 "Swift Implementation," City and County of Denver Department of Transportation and Infrastructure, accessed October 13, 2026, *https://www.denvergov.org/Government/Agencies-Departments-Offices/Agencies-Departments-Offices-Directory/Department-of-Transportation-and-Infrastructure/Programs-Services/Green-Infrastructure/Swift-Implementation*.

99 "What Funding Strategies Exist Beyond Traditional Grants for Resilience Projects?," Dewberry, March 12, 2026, *https://www.dewberry.com/insights-news/post/blog/2026/03/12/what-funding-strategies-exist-beyond-traditional-grants-for-resilience-projects*.

100 "Caldwell County Demographic and Economic Information," *Caldwell County, Texas*, accessed September 28, 2026, *https://www.co.caldwell.tx.us/page/article/26*.

101 "About," Clean Fund Texas, accessed October 10, 2026, *https://cleanfundtx.org/about/*.

102 "Texas Homeowner Initiatives," Clean Fund Texas, accessed October 13, 2026, *https://cleanfundtx.org/texas-homeowner-initiatives/*.

103 "Service Areas," *Texas Space Commission/Texas Space Authority*, accessed September 28, 2026, *https://www.texaspaceauthority.org/home/service-areas/#cities*.

104 Leslie Kaufmann, "How 'Super Roofs' Reward Insurers, Cat Bond Investors and Homeowners," *Insurance Journal*, December 1, 2025, *https://www.insurancejournal.com/news/southeast/2025/12/01/849459.htm*

105 Victoria Salinas, *Resilience Finance Guidebook for Local Governments* (ICLEI and Duke University, 2026), *https://import.cdn.thinkific.com/1074369/ikM1AARAQF6YN1eBs6h7_Resilience%20Finance%20Guidebook%20for%20Local%20Governments.pdf*.

106 "DC Water's Environmental Impact Bond," U.S. Environmental Protection Agency, accessed September 28, 2026, *https://www.epa.gov/waterfinancecenter/dc-waters-environmental-impact-bond*.

107 Victoria Salinas, *Resilience Finance Guidebook for Local Governments* (ICLEI and Duke University, 2026), *https://import.cdn.thinkific.com/1074369/ikM1AARAQF6YN1eBs6h7_Resilience%20Finance%20Guidebook%20for%20Local%20Governments.pdf*.