# Southern Arizona Coalition for Climate Adaptation and Resilience: A cluster to drive sustainable agriculture, preserve water resources and develop clean energy

The Southern Arizona Coalition for Climate Adaptation and Resilience (the Coalition) brings together diverse, previously under-coordinated organizations and industries to create a growth cluster critical to our arid region that focuses on sustainable agriculture, water resources, and clean energy. The Coalition proposes six complementary and transformative Projects that will accelerate our region's emergence as a national center of climate adaptation and resilience, validate EDA investment, and result in tangible economic growth for our region. Our unique value proposition lies in our existing assets, our intentional equity-based framework, and the development of a reproducible model for communities to organize around climate challenges at a regional scale.

Coalition Members/Component Projects: 1) Lead City of Tucson, 2) Greater Yuma Economic Development Corp, 3) the University of Arizona, 4) Pima Community College, 5) Arizona Western College, 6) Startup Tucson, 7) Campus Research Corp that includes the UA Center for Innovation (UACI) and Tech Parks Arizona, 8) the Community Investment Corporation; Coalition's equity partners 9) the Community Food Bank of SoAZ, 10) Santa Cruz Valley Heritage Alliance, 11) Yuma Crossing National Heritage Area, and 12) YWCA of Southern Arizona. These Coalition members will be joined by additional regional supporters and partners like the San Xavier Cooperative Farm of the Tohono O'odham tribal nation.

- 1: Research Innovation and Translational Technology: Led by the University of Arizona. Climate adaptability in our region demands the development of new technologies and research innovations that can be translated into practice and new business starts. This component will focus on the development and commercialization of innovations from within the University and their applied transfer to industry and community partners. The Future of Farming Hub (FFH, or Hub) will build, expand, and support a research and translational technology ecosystem focused on three areas precision field agriculture, indoor farming, and on-site energy production/waste management. The main objective is leveraging regional assets and accelerating economic recovery toward a prosperous, resilient, and equitable future.
- 2: Workforce Resilience: Co-Led by Pima Community College and Arizona Western College. Automation is shifting the nature of agricultural jobs from low-skill labor to human-robot interactions. Innovations, such as modern vertical farming add further disruptions. Project Sustainable Transportation, Equipment, Agriculture, and Logistics Training Hub (STEALTH) will leverage Industry 4.0 and lead workforce resilience innovation by undertaking a strategic course to align workforce training to high-growth jobs. The goal is creation of a family-sustaining wage within the sustainability sector through the design, development, and implementation of eight skills-based Certificates that have an intentional focus on addressing climate adaptation including certificates for Precision Agriculture, Circular Economy Environmental and Protection Technicians and Resilient Water and Energy Systems.
- **3:** Entrepreneurship Co-*Led by Startup Tucson and UACI*. As innovative ideas emerge, our startup ecosystem supports founders to help scale those ideas into job-creation engines. (SUSTAIN) Through a combination of 1) specialized business education programming, 2)

experienced industry mentorship, 3) diverse partner organization support, and 4) access to customized product development space, **SUSTAIN: Jumpstarting Food and Agricultural Entrepreneurship** will support traditionally underserved food and farm entrepreneurs alongside founders working on emerging technologies in sustainability and agriculture.

- 4: Sustainable Infrastructure: Strategic infrastructure investments must be used to support technologies and companies developed within the cluster and lay the groundwork for attracting new industry partners with a direct interest in Coalition goals. Through the Los Reales Sustainability Campus (LRSC) the City of Tucson will transform an active landfill into a regenerative "waste management-to-materials management" sustainable ecosystem. LRSC will deliver environmental justice and the creation of hundreds of green jobs through the construction of seven shovel-ready pads for a future materials reclamation facility, six small-to mid-sized manufacturing plants to utilize material diverted from the landfill, and the purchase of a state-of the-art green waste processor which will reduce harmful greenhouse gasses and increase the amount of compost produced for our region. The Ubiquitous Rural Broadband in support of AgTech implementation for Climate Adaptive Agriculture (Ubiquitous Rural Broadband) project, led by the Greater Yuma Economic Development Corporation, will allow Yuma County to leverage their middle-mile fiber network expansion to construct 50-75 fixed wireless towers reaching over 450 remote farm fields and low-density rural communities to establish an Internet of Things AgTech operational lab for future sustainable agriculture.
- **5: Seed Funding** *Led by Community Investment Corporation*. Seed funding is essential to ensure robust support of promising technology, emerging businesses and diverse entrepreneurs. Programs under this component will focus on creating multiple on-ramps for gap-funding from prototype to scale in the cluster's focus areas. The **Southern Arizona Fund for Equity and Resilience** (SAFER) will manage a \$2 million RLF in partnership with the Greater Yuma Economic Development Corporation (GYEDC). SAFER will provide operating capital for the Coalition projects, financing for machinery and equipment, acquisition of land and buildings, and will administer a \$10 million dollar venture seed fund to offer non-dilutive and risk capital seed funding that will support ag-tech ventures.
- **6: Governance -** *The City of Tucson* will lead and support the Governance of the Coalition for the duration of the Build Back Better Regional Challenge program. A full-time Regional Economic Competitiveness Officer will ensure successful completion of the Coalition's projects, fulfill all reporting requirements, and promote the long-term sustainability of the Coalition's mission. Biannual convenings of the Coalition will ensure widespread and diverse participation while inspiring and supporting transformational outcomes from the Coalition's projects.

Alignment with Regional Strategies: These projects all support the CEDS of our major governmental partners: in particular, City of Tucson's strategy includes support of entrepreneurship and technologies that address climate resiliency; Yuma County CEDS prioritize investment in infrastructure to further attracts new high growth industries and the existing agriculture industries; and the Western Arizona Economic Development District's CEDS include the goal of directly addressing climate change impacts and responding to these imminent threats through creative problem solving to ensure regional economic resilience.

Complementary Efforts: All Coalition members are already engaged in complementary efforts that support this cluster and continue to build projects and capacity in these areas. High-level complementary efforts include actions of the City and PCC to create climate action and adaptation plans and committees to find and commit to achievable paths to further reduce carbon emissions and adapting to the impacts of climate change; UA's climate research infrastructure assets and more than 100 current ag-related funding awards (i.e. projects) totaling over \$44M dollars; Startup Tucson's and UACI's existing federal funding to support entrepreneurs and scaling ventures; CIC's current programs to provide capital to underserved entrepreneurs; AWC strong agricultural Science associate degree program and GYEDC creation of an Agriculture Center of Excellence in Yuma. Additionally, the Coalition has already started to evaluate applying for additional funding from other sources.

Anticipated Impact: The six Projects have the potential to generate thousands of jobs, increase wages of thousands more, reduce unemployment in vulnerable communities, and create and attract high-growth industries that come with billions of dollars in capital and auxiliary benefits. Expected regional outcomes include: a) new business starts, (b) increase in company revenues, c) job creation, d) wage growth, e) reduced unemployment, f) total capital attracted/leveraged (e.g., angel, VC, loans, grants), g) new patents & IP secured, h) total populations served, i) diversity of populations served j) impact on GDP growth in addition to several climate specific goals. Details and specific outcome goals are included in the detailed section below.

**Timeline:** The Coalition's timeline is focused on the fast implementation of programmatic elements to maximize the impacts of the award. The programs under FFH, SUSTAIN, STEALTH and SAFER will all be finalized in year 1 and in full operation by year 2. All programs have specific sustainability plans to be self-sustaining by the end of year 4 and the completion of the grant. Construction under the LRSC and Ubiquitous Rural Broadband projects will include RFPs/Procurement in year 1, construction in years 2 and 3 and will be in full operation by year 4 of the grant. The overall Governance plan of the Coalition is already in place and will continue immediately upon award.

## **Regional Snapshot**

The Sonoran Desert extends from Sonora, Mexico into southern California and Southern Arizona. The region has the longest continuous agricultural community in North America spanning 4,000 years. Food production is deeply embedded in our culture as evidenced by UNESCO Gastronomy and National Heritage Area designations. We are home to numerous leaders in agricultural production, with new sustainable agriculture and clean energy companies emerging, attracted by the innovative research at our top public research institution, the University of Arizona, and the infrastructure of rural communities like Yuma. Our region's nationally essential agriculture provides 90% of winter leafy greens to all of North America but is threatened with 90% of our state experiencing "exceptional drought" during much of the last two decades due to climate change. Further, Arizona will face a 20% reduction in Colorado River water in 2022– negatively impacting our agricultural industry which accounts for nearly 70% of all water usage in Arizona. This cluster supports 408,622 jobs and adds \$50 billion dollars to our State and is especially critical to our tribal communities, with almost 20,000 indigenous farmers and ranchers in Arizona comprising about 57% of the agricultural operators.

Specific target participants vary for each Project, but all are designed to either directly or indirectly serve Southern Arizona's underserved and marginalized communities, including Indigenous, Latinx and Black communities, rural communities, women, and those in vulnerable industries.

Primary and Secondary Service Areas: The Coalition's primary service areas include Pima County, Arizona (FIPS Code 04019), and Yuma County, Arizona (FIPS Code 04027), however the Coalition will seek involvement with, and provide resources to government, not-for-profit, and private sector entities in Cochise County (FIPS Code 04003), Greenlee County (FIPS Code 04009), Graham County (FIPS Code 04011), Santa Cruz County (FIPS Code 04023), and Pinal County (FIPS Code 04021). Map of the full primary and secondary service areas and Sonoran Desert Region is attached.

# **Tucson Metropolitan Statistical Area:** In

Population: 1.05M people with a median age Median household income: \$56,169

Economy employs: 465,000

Largest ethnic groups:

- White (Non-Hispanic) 51.1%)
- White (Hispanic) 24.8%
- Other (Hispanic) 7.82%
- Black or African American 3.35%

# Yuma Metropolitan Statistical Area

Population: 209,000

Median household income: \$45,243

Economy employs: 75,900 Largest ethnic groups:

- White (Hispanic) 45.3%
- White (Non-Hispanic) 31%
- Other (Hispanic) 15.8%
- Black or African American 1.68%

### **Private Sector Participation and Engagement**

Our private sector engagement strategy has been developed to ensure maximum private sector participation and that our efforts will generate maximum impact on GDP and job growth, while at the same time creating a dynamic and equitable cross-collaboration with community, university, tribal and government representatives. As demonstrated by our numerous letters of support from Senators Kelly and Sinema, Southern Arizona Leadership Council, Environmental Defense Fund, and companies both large and small, this cluster has had powerful resonance with our corporate community, and we have already seen cross-sector collaboration that bodes well for the future success of the Coalition. Private sector participation and investment already includes:

- The STEALTH Project's Industry Working Group that includes Tucson Electric Power, Pima County Wastewater Reclamation, TuSimple, ADOT Equipment Services, and City of Tucson Water to participate in co-designing curriculum, establishing employer-driven skills that include both technical and soft skills, identifying industry needs, and helping to showcase cutting-edge technology.
- The FFH's Yuma Center of Excellence for Desert Agriculture which is a public-private partnership that includes the University of Arizona and companies such as Barkely Ag, JV Smith Companies, Taylor Farms, Gowan Co., D'Arrigo Bros., Nutrien Ag Solutions and their indoor agriculture program supported by UA's Controlled Environmental Agriculture Center (CEAC) whose members and sponsors include Bright Farms, Ridder, Priva, Argus Controls, Bios, Pro-Mix, Beaver Plastics, Grodan, and Iluminar Lighting
- SUSTAIN's commitment from private property owner/real-estate developer Peach Properties for in-kind rent and investment from Thomas R. Brown Foundation.

- The LRSC to date has commitments from 3 private employers for \$750 million in capex and the creation of 422 jobs and the Ubiquitous Rural Broadband's commitment from Allo Communications to build/operate the county-wide middle-mile fiber network.
- SAFER's partnership with GYEDC and the Sonoran Innovation & Entrepreneurship Science & Technology Assets, a venture seed fund

Our continued industry engagement plan includes 1) building on existing relationships and industry connections, 2) focusing on serving industry needs and 3) utilizing outreach partnerships. Additionally, as part of our Coalition's Governance structure, all component projects will adopt a relevant committee structure for their particular project. These standing committees will be designed to support and enhance the component's work and work with their project's structure. Committees will include coalition member representatives, regional asset organization representatives, industry leaders, and equity partners, and should have seats on each committee reserved for representatives from tribal, rural and underserved communities.

#### Sustainability Plan

The Coalition has committed to continuing its collaborative work beyond the period of the funded award, with the intent of realizing transformational change in the areas of climate adaptation and economic resiliency. The major public institutions represented in the Coalition, specifically, City of Tucson, University of Arizona, Pima Community College, and Arizona Western College, have committed significant resources to ensure the regional growth cluster is sustained after the period of the funded award. The projects described below will contribute to the long-term sustainability of the regional growth cluster

- Future of Farming Hub: The Hub's programs will reside mostly within the UA as part of the existing research enterprise, which includes more than \$750M of extramural funding from government, philanthropic and industry sponsors. EDA funding will be used to establish and initially run specific programs aimed at increasing technology transfer from sponsored research out of the university to industry. The transition and transfer of technology will be supported by the University's technology transfer office, while development of student entrepreneurship will be supported, independent of EDA funding by Arizona FORGE.
- Project STEALTH: The Southern Arizona strategic plan for Workforce Development prioritizes the expansion of innovative solutions that will produce an industry-ready workforce with highly attractive skills and credentials. In alignment with this approach, the University of Arizona has developed a model of use-and user-inspired research that emphasizes technology de-risking and fosters an entrepreneurial mindset while Arizona Western College is revitalizing the region with a newly remodeled Manufacturing and Construction Trade Center that will train technicians to meet industry-driven workforce demands. Pima Community College continues to invest in new Centers of Excellence that provide high-touch/high-tech training for in-demand jobs. The strong alignment with partners and industry will increase our competitiveness and help attract significant support to ensure sustainability beyond EDA funding.
- <u>SUSTAIN</u>: Primary ongoing costs of SUSTAIN will be facilities rental, maintenance and staffing. By working with the other Coalition partners, it is anticipated that some staffing can be incorporated into existing organizational budgets. SUSTAIN will also work to pursue other federal and regional grants to support its work (many have already been identified that

are in direct alignment). There will also be opportunities for the organization to seek out foundation and private sponsorships, building off UACI's sponsored launch program model that generated \$25K in sponsorship per company for a year. Included in the budget narrative is a detailed plan for a scaled approach to generating membership revenue to offset the cost of facilities/space rental support by the end of the grant period. Private partner Peach Properties has indicated they will continue to donate a portion of the rental expenses to support diverse founders.

- <u>Los Reales Sustainability Campus:</u> The physical infrastructure developed through the Build Back Better Regional Challenge will be owned, operated, and maintained by the City of Tucson in perpetuity. Private sector capital investment and job creation are an expected outcome of this project and are not dependent on continued grant funding.
- <u>Ubiquitous Rural Broadband:</u> Once completed, Yuma County owned ubiquitous rural broadband will be accessible in all agricultural production areas of Yuma County, to provide translational research and development that allows more than 450 farms in the area to develop and utilize AgTech such as remote sensors, drones, and automated harvesting equipment to fight the effects of climate change. In addition, ubiquitous rural broadband will be available to traditionally underserved populations, creating access to telemedicine, education, and more.
- <u>SAFER</u>: SAFER's goal is to grow the loan portfolio over time to ensure interest income covers operating and administration costs. This requires balancing the interest rates charged between revenue producing larger loans and some of the mission-focused, equity driven loans that may be at well below market rates and/or use alternative financial analysis and underwriting. CIC also raises funds for a loan loss reserve to protect the principal balance. This allows planning for consistent interest revenues to ensure covering the costs of administering our loan portfolio.
- Governance: To promote sustainability of the Coalition, the City of Tucson and Coalition members will work together to continuously monitor available federal and regional funding opportunities that can be leveraged. The Coalition will also explore the pathway to a full time permanent funded RECO position.

The Coalition and City of Tucson are confident that should the Coalition be selected for Phase 2 funding, support for the effective governance and transparency of the cluster will be top priority and provide multiple types of investment opportunities to support the continuance of this plan post-award.

#### **Community-Based Organizations & Labor Standards**

Community Organization Engagement: The Coalition itself already includes numerous community-based organizations as Project and Equity Leads including Startup Tucson, Community Investment Corporation, Community Food Bank of SoAZ, Santa Cruz Valley Heritage Alliance, Yuma Crossing National Heritage Area, and YWCA of Southern Arizona. Additionally, many of the Coalition's partners are community-based organizations like Local First Arizona, Growth Partners Arizona, the Tucson City of Gastronomy, and the San Xavier Cooperative Association. These organizations were involved in the solidification of the Phase 2 projects and are committed to continuing to participate in the Coalition moving forward to ensure economic benefits for all local residents. These partners will be involved with the Coalition's Committees as explained in the Governance Project outline.

**Labor Standards:** For all EDA grant-funded construction costs within its jurisdiction, the City of Tucson and Yuma will give preference to local contractors who employ union workers, pay Davis-Bacon prevailing wages, properly classify employees as "employee" rather than "independent contractor," and treat them accordingly for the purpose of minimum wage, overtime, worker's compensation, insurance coverage, and all relevant taxes.

#### **Equitable Impacts**

The Coalition will provide a significant opportunity to transform our eco pieces into a vibrant ecosystem through unprecedented integration at all levels. We have been intentional in our process in recognition of historical inequities usually present in economic development. Instead of attempting to rush this process and choosing specific projects for Phase 1 based on "lowest hanging fruit" that might not result in the benefits of the cluster being realized equitably across all affected communities in SoAZ, we elected to create an equity plan that would support program development from traditionally underrepresented rural locations and community-based entities as part of our Phase 1 planning process. Essentially, a paradigm shift in economic development. By spending more time in Phase 1 to increase our Coalition size and engage more diverse partners in our component committees and by committing to evaluating ALL programs against an equitable framework, we ensured that programs included in Phase 2 will truly impact all populations and the region as a whole. The Coalition's Equity Advisory Committee was an integral part of our Phase 2 process and has advised on each project submitted here. The Coalition intentionally designed six projects to ensure the benefits and opportunities our regional cluster provides will be shared equitably across urban and rural areas including traditionally excluded populations. Moving forward, the Coalition will utilize the equity structure outlined in Phase 1 and included in the Governance Project to continue to ensure benefits of the cluster are equitably shared across all affected communities, both urban and rural, including efforts to reach historically excluded populations, racial minorities, and women. This includes the Coalition Member Committee, Component Sub-Committee and Equity Committee and Public Meetings, Conference and Information Dissemination. The Phase 1 Work & Accomplishments section includes highlights of how the model was used in Phase 1. Lessons learned from this process will be carried forward into our committee, governance and review process in Phase 2.

In particular, the program elements of the Coalition Projects are intentionally designed to serve our region's most vulnerable populations. For example, STEALTH is designed to address the skills gap while creating upward social mobility for Southern Arizona's underserved and marginalized communities, including Indigenous, Latinx and Black communities, rural communities, women, and those in vulnerable industries. SAFER will be administered by CIC who created and runs an award-winning DEI loan program. The customized and culturally competent approach (based on inquiry, listening, and power- sharing) currently utilized by CIC will be expanded to help the Coalition attract more diverse business owners and increase the likelihood of perseverance. This means being open to adjusting and customizing the outreach, application, underwriting, and support processes that are identified as barriers by entrepreneurs. To this end, CIC's products include customized products such as a 0% BIPOC Loan that uses alternative character-based underwriting and a committee of BIPOC community members to review and score loan applications. SUSTAIN's programs will be offered both hybrid and multilingually, working with partners like the YWCA and San Xavier Cooperative Farm to ensure tribal, rural, women and minority business owners benefit from the grant.

#### **Outcomes and Complementary Work**

Our next generation cluster will unleash an expected \$1 billion dollars in private investment over the next 4 years resulting in the generation of thousands of jobs, increase in wages of underserved community members, reduction of unemployment in vulnerable communities, and attraction of high-growth industry partners and new startups and entrepreneurs. We can expect that this project will also result in hundreds of new business starts and an increase in company revenue as well as an increase in total capital attracted/leveraged (e.g., angel, VC, loans, grants) and patents & IP secured. Coalition members will also use their cluster-based subject matter expertise to develop a standardized set of secondary measures to evaluate impact on climate adaptability, including a lens of cultural competency – including items like access waste diversion and reduction in commercial agricultural water consumption. The results will position SoAZ to be the global leader in solving these challenges as a living-lab for climate adaptation and resilience while improving the quality of life for our region's most vulnerable populations. The Coalition expects the BBBRC to assist in the Coalition achieving the following outcomes:

- **Job Creation and Growth:** LRSC plans to create 422 jobs with a mix of small- to mid-sized manufacturing, and green energy jobs, paying above current Tucson median household income. Rural Broadband will also result in increased employment in Yuma. FFH expects 500 new jobs created in Southern Arizona. STEALTH expects to help 543 students obtain new careers with family-sustaining wages. SAFER expects that every \$25,000 of loan capital will result in 0.75 new jobs/employees. SUSTAIN estimates that their 240 member companies will report a 35% increase in full-time jobs created and a 50% increase in part-time jobs created.
- Workforce Development: STEALTH expects to recruit 1,132 students with an enrollment of 80% of students (905 students). 75% of these will earn a credential (679 students). Of the individuals who earn one or more credentials, 80% will obtain a job (543 students) in careers with family-sustaining wages.
- **Private Investment, Waste Diversion and Net Zero Goals:** LRSC is expected to result in \$750 million in capex investment and will result in an increase in the waste diverted from the landfill and repurposed into new products, reduction in greenhouse gasses, increase in Tucson GDP and meaningful gains towards City net zero goals.
- Commercialization of Cluster Specific Translational Research: FFH expects 4 translational grants awarded by the end of year three with a goal of over 1000 newly created jobs, 45+ industry partners, 7+ disclosures, 3+ licenses, 3+ spin-off companies, 6+ student fellows hired by industry, 6+ industry-funded projects, 6+ translational grants awarded by the end of year 4.
- New and Existing Business Growth: SUSTAIN estimates of the 240 member companies will be served, 75% will report an increase in revenue with an average of 30% upon program completion. Loans, capital formation/investment or research grants extended to these companies are expected to be over \$600,000.
- Equitable and Increased Distribution of Capital: SAFER expects at least 50% of loan recipients will show increased gross revenues 1 year after funding and increasing to 65% of recipients 3 years after funding. Average increases in revenues for businesses experiencing an increase will be 50% and at least 85% of non-startup businesses will have survived 3

- years after receiving funding. Diversity of loans will include at least 40% of loan recipients will be 50%+ BIPOC-owned; At least 50% of loan recipients will be 50%+ Woman-owned.
- Increased Access to Broadband Services: The Ubiquitous Rural Broadband will result in 2,000+ traditionally underserved populations benefitting from equitable technology accessibility; 7 Farms and 6 agricultural irrigation districts receiving broadband access; 100% increase in rural and remote broadband access infrastructure; 20% increased agricultural productivity by enabling complex weather prediction data that will assist in monitoring Colorado River water consumption and water distribution endpoint.

Complementary Work: All Coalition members are already engaged in complementary efforts that support this cluster. The City of Tucson is currently engaged in the creation of a Climate Action and Adaptation Plan, which establishes an aspirational, yet achievable path to further reducing carbon emissions and adapting to the impacts of climate change. The CAAP will align with the efforts of cities across the state of Arizona and around the country to coordinate and promote climate adaptation and community resiliency strategies at the local and regional levels. The University of Arizona, Arizona's flagship land grant university with research expenditures of almost \$800M and deep subject matter expertise in food, agricultural, and water sectors, as well as unique, relevant infrastructure assets such as Biosphere 2, Arizona Institutes for Resilience, the Controlled Environment Agriculture Center, and the Yuma Center of Excellence for Desert Agriculture is deeply committed to these projects with funding sources already identified and a constant flow of new support. UA has more than 100 current ag-related funding awards (i.e. projects) totaling over \$44M dollars. These range from crop sciences to data analytics to drone technologies. Startup Tucson is the recipient of various other EDA, USDA, and SBA grants to support its work with food entrepreneurs and scaling ventures and Community Investment Corporation is already helping to provide capital to underserved entrepreneurs. Arizona Western College has a very strong agricultural Science associate degree program, the only land lab college program in the State of Arizona, agriculture-related internship opportunities, and workforce-focused partnerships across the state in areas relevant to this proposal. The Pima Community College Climate Planning Team (CPT) has set a charge to develop a comprehensive Climate Action Plan addressing academics and operations, to position the College to half its carbon footprint by 2030. The GYEDC is creating an Agriculture Center of Excellence in downtown Yuma in partnership with the City of Yuma and the city owned Hotel del Sol restoration. GYEDC also works with local, State and Federal agencies to provide workforce and housing programs for underserved populations in the area.

## Phase 1 Work, Accomplishments & Changes

After Phase 1 submission but prior to learning of Phase 2 selection, the Coalition held its first public planning meeting in partnership with the University of Arizona to build further momentum and consensus around the cluster's growth plan. The event included a high-level overview of the vision from Coalition members as well as separate breakout sessions per component area to generate additional ideas for inclusion in potential Phase 2 projects. The event was well-attended by over 50 individuals representing government, private industry, higher education, tribal nations and community-organizations throughout the Southern Arizona region. Upon learning of the Phase 1 award, the City of Tucson immediately designated a RECO to begin implementation of its Equity Plan and Community Engagement Strategy. With support from this RECO, the public, regional economic development community and the professional

and community networks of all Coalition members and equity partners were invited to participate in an informational session and ultimately send proposals for concepts to be included in Phase 2 Projects. As described in the equity plan, this process was created to ensure inclusion of underrepresented members of the community and organizations throughout all final projects. A website page was also built to share information in real-time as Phase 2 applications were being finalized. The informational session had 92 participants, and a total of 48 concepts were submitted for consideration. All submissions were vetted through multiple Coalition meetings over 2-weeks. A down-selection process resulted in the formation of 8 total projects which fit the vision of the Coalition and met EDA funding guidelines. Several projects not selected were assisted with feasibility funding and technical expertise and may eventually be incorporated into future Coalition projects.

The Coalition then convened its Equity Advisory Committee (EAQ) to review the 8 projects. Using an equity rubric, the EAQ reviewed the 8 proposals and scored them, and a final meeting was convened in which the EAQ discussed each proposal and made recommendations to the Coalition. The component projects were refined utilizing the EAQ's insights related to the identification of inclusion opportunities, unintended consequences and other ways to enhance projects to promote diverse and widespread participation and positive outcomes. This resulted in further outreach, adding several new partners from underrepresented communities, reconfiguring our initial project scopes, and bringing our total constellation of projects to 6. This experience drove home the point for our Coalition that, with intentionality and support, we can build an equitable and resilient future. In addition to the community engagement proposal process and equity committee review, the Coalition has been meeting weekly since January to share updates, refine Projects and ensure collaboration across community-organizations and industry supporters. Coalition members also checked-in weekly with EDA Technical Advisors and participated in many of the presentations and conferences offered by the EDA. A majority of the other work completed during Phase 1 was Project specific, including securing match commitments and industry partner support. The construction projects also worked to prepare additional feasibility studies to mitigate risk.

Changes: A majority of the changes that occurred between our Phase 1 and 2 applications were the result of clarifications made by EDA in regards to the NOFO and what was allowable or not as submissions. For example, in our Phase 1 application, our Coalition took to heart the charge to create transformational, inclusive projects that incorporate community members traditionally left out of the federal grant process. Central to executing on this vision was allowing our large municipal Coalition members to leverage their deep financial resources to meet the 20% match across all projects so that smaller community-organization partners could submit proposals without needing to secure a match. Upon learning we could not distribute the 20% match across all projects, this strategy had to be adjusted. By the time EDA decided to change the match rule back, it was too late to re-implement the overall approach. Other changes similar to this included changing the scope of the LRSC to reduce focus on the methane cleanup facility, reconfiguring our workforce training programs to better align with EDA investment priorities, and proactively reaching out to any regional RLF funds to make sure our expected targeted investment categories would not overlap with theirs. The stringent federal rules centered around construction projects created significant obstacles in the design process and resulted in some projects being cut that would otherwise have been very beneficial to the cluster's growth.