



REGIONAL OPEN SPACE STRATEGY FOR CENTRAL ARIZONA

WHO WE ARE

The Central Arizona Conservation Alliance (CAZCA)

Convened by Desert Botanical Garden in 2012, CAZCA aligns and unifies the efforts of more than one-hundred partner and collaborating organizations to conserve, restore, and raise awareness for open space and natural areas in Central Arizona.

Through community engagement, collaboration, and strategic regional coordination, CAZCA works to ensure a sustainable regional open space system that supports healthy ecosystems and healthy communities.

Desert Botanical Garden (the Garden)

For over 85 years, the Garden has been teaching and inspiring visitors from the local community and around the world, providing research, exhibits, and more; designed by the Garden to help people understand, protect, and preserve the desert's natural beauty.

The Garden's commitment to the community is to advance excellence in education, research, exhibition and conservation of desert plants of the world with emphasis on the Southwestern United States. We will ensure that the Garden is always a compelling attraction that brings to life the many wonders of the desert.

WHERE WE WORK

We operate in Central Arizona and coordinate with partners outside of our area of operation to aid them in conservation efforts. A map of our area of operation (referred to as the Regional Open Space Study Area) can be found on pages 29 and 30.

CAZCA respectfully acknowledges that the lands in which we and our partners operate is the homeland of twenty-three Native Nations, who lived on this land since time immemorial. This area is the ancestral territory of multiple Indigenous peoples including the Akimel O'odham and Xalychidom Piipaash (Maricopa) Communities. This landscape is sacred and essential to the cultural values of the ancestors of these peoples and the tribes that live here now. We also acknowledge that the Native American Tribes have lived on, managed, and worked this landscape and have Traditional Ecological Knowledge of this ecosystem which we recognize and respect, and strive to learn and incorporate as we work to conserve open spaces and natural areas in Central Arizona.



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In January 2016, with significant human and financial resources from the Nina Mason Pulliam Charitable Trust, Desert Botanical Garden, Maricopa County Parks and Recreation Department, the McDowell Sonoran Conservancy, the Sonoran Institute, the Nature Conservancy, the Trust for Public Land, and more than thirty other participating organizations, the Central Arizona Conservation Alliance convened a multi-scale, stakeholder-driven, strategic planning process in an effort to reconcile our region's values for economic growth and conservation of our natural and cultural heritage. Through hundreds of collaborative workshops and meetings, and with copious research and outreach, that process has resulted in this Regional Open Space Strategy for Central Arizona (ROSS).

In 2023 the CAZCA Staff and Steering Committee members undertook a review of the ROSS as a whole, and in particular the Objectives and Action Items under each goal. With inputs from the 90+ partners in committees, through surveys, and at All Partner meetings through 2023 and 2024, the ROSS was revised. This version looks towards the decades to come and how to meet the new challenges that have arisen since the first publication. It also includes successes achieved across the partnership to celebrate the work done over the past 8 years.

The updated ROSS is a second iteration road map and action agenda. It is in no way exhaustive. It lays out fundamental initial steps toward unified, cohesive, regional open space conservation, but acknowledges there still exist gaps in information, collaboration, and coordination. In the ROSS, we put forward clear, concise objectives and specific on-the-ground, highly achievable strategies inclusive of the social, cultural, environmental values of communities. These objectives fall under four main goals: Protect & Connect, Sustain & Restore, Love & Support, and Coordinate & Elevate. When fully implemented, the ROSS will deliver a connected, distinctive, well-managed open space network that will enhance the unique character of the region and enable Central Arizona to realize the full benefits of open space for people, environment, and economy.

The ROSS is both strategic and tactical, simplistic where necessary, and more sophisticated where possible. As the community of practice tests ideas and advances its collective capacities and understandings, we plan to revisit, adapt, and revise the ROSS in turn. It is a living, breathing, responsive strategy and the commitment of the Central Arizona Conservation Alliance is to continue to nurture and forward its goals toward achieving a sustainable open space system that supports healthy ecosystems and healthy communities.



Introduction

In 2016, Maricopa County became the fastest growing county in the United States, **adding 222 new residents each day**.¹ From 2010 through 2016, the Phoenix metropolitan area documented the highest percentage population gain of all the major metropolitan areas in the Western United States.² Since 2016 Maricopa County has continued to grow (though as of 2023 it was the 4th fastest growing county), adding 30,038 residents from July 2022 to July 2023.³ While this continued growth is striking, the region is no stranger to robust growth. It is, in fact, defined by growth.

In the 20 years between 1955 and 1975, the Phoenix metropolitan area nearly tripled in population, growing from 550,000 residents to more than 1.3 million. In the 35 years that followed, population more than tripled again such that by 2010, the region was home to 4.2 million residents.⁴ Since 1980, the Phoenix metropolitan area has been among the fastest growing in the nation – a trend projected to continue into the foreseeable future.

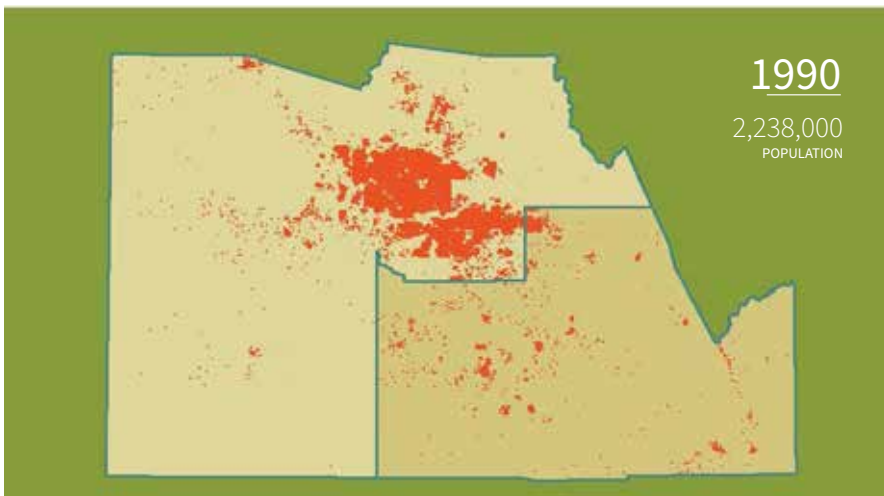
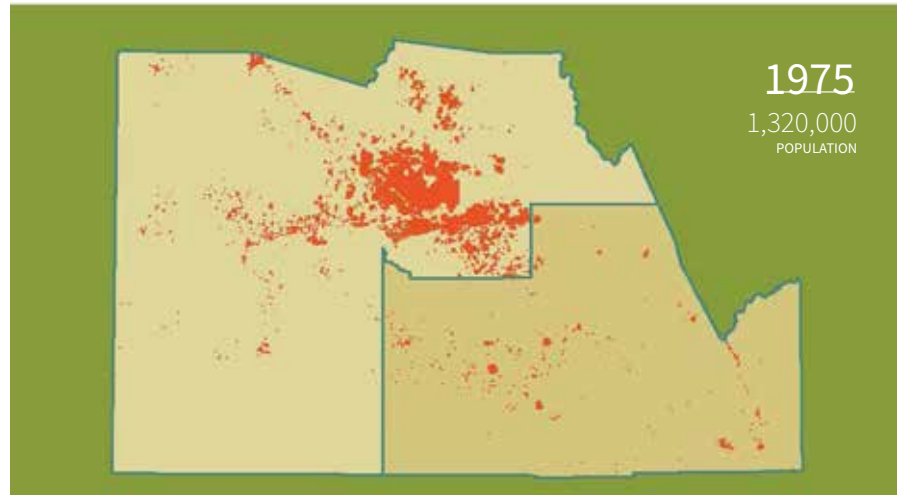
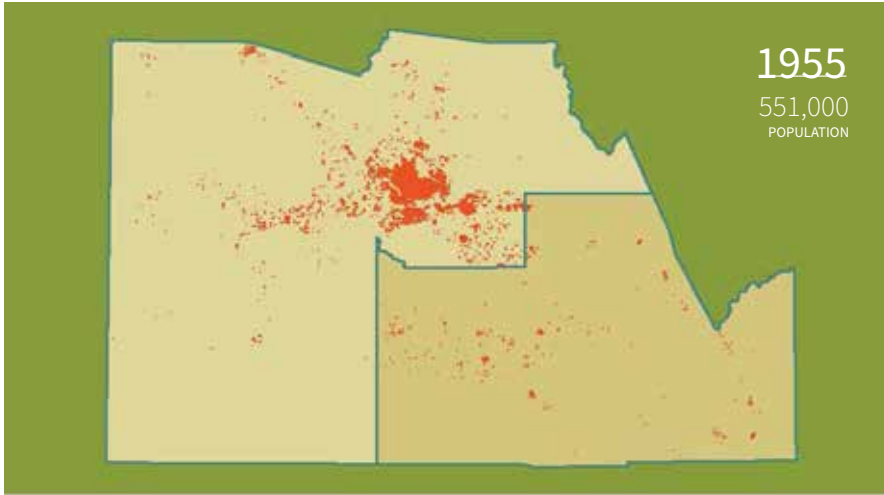
The Arizona Office of Economic Opportunity projected the 2023 average population of the CAZCA area (Maricopa, Pinal, and Gila Counties) to be 5,173,434 residents.⁵ By 2040 the population of the Phoenix-Mesa-Scottsdale Statistical Area alone is projected to climb to around 6.5 million residents, and by 2060 the Phoenix-Mesa-Scottsdale Statistical Area is projected to have nearly 8 million residents.⁶

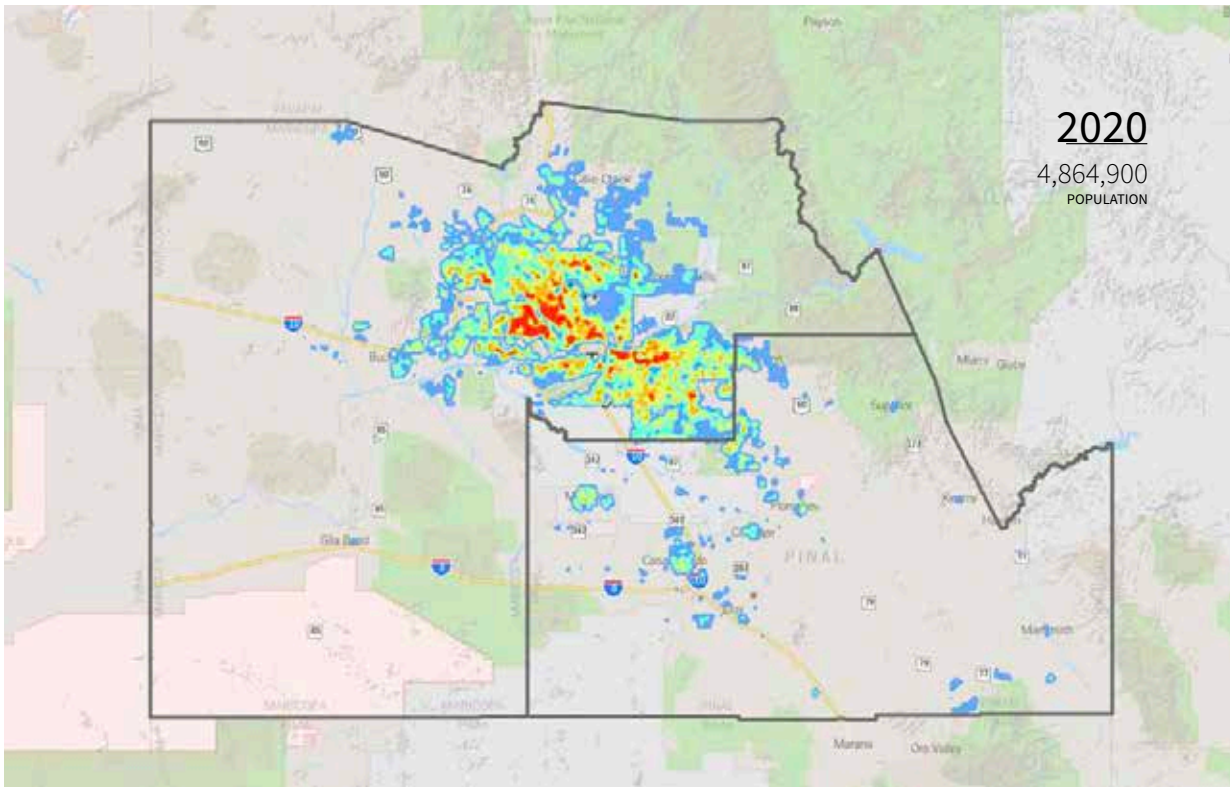
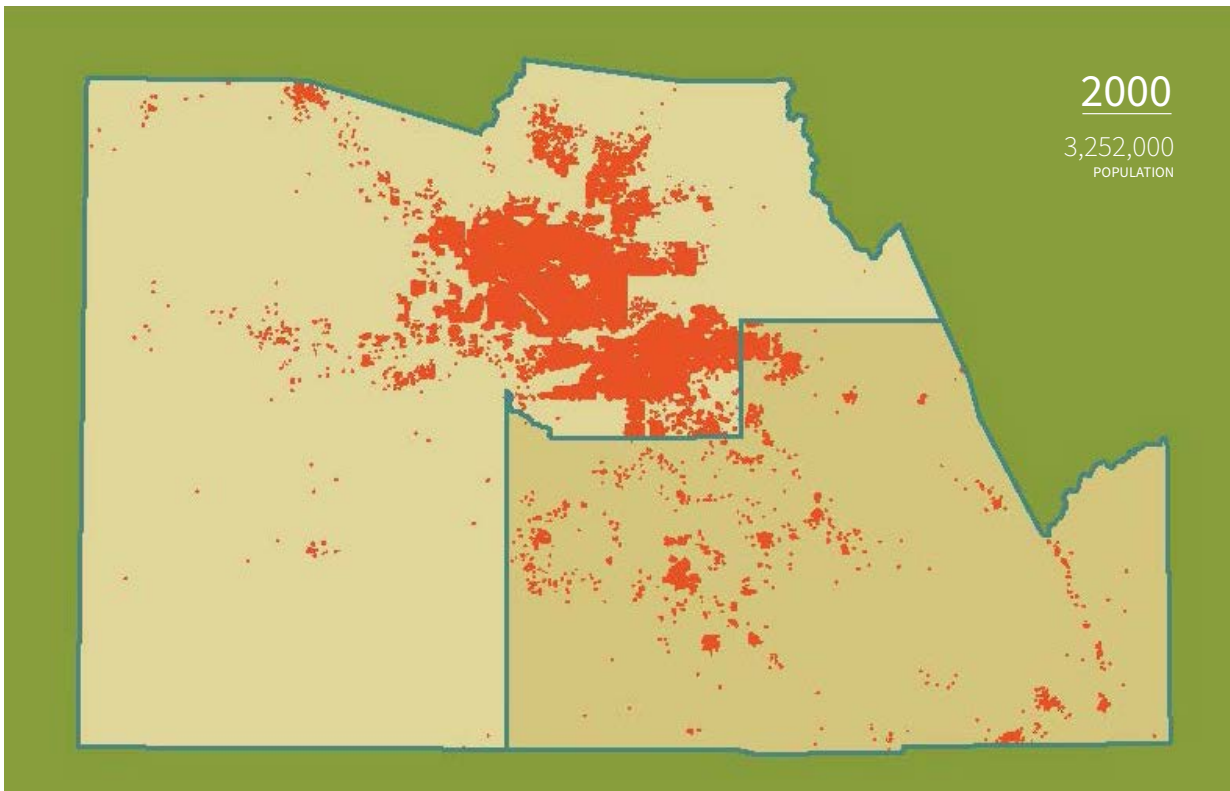
Over the decades, the Central Arizona region has captured the hearts and minds of many new residents. Certainly, the combination of variables that manifest as “good quality of life” plays a tremendous role in this. Economic opportunity, entertainment experiences, good winter weather – the Central Arizona region has it all.

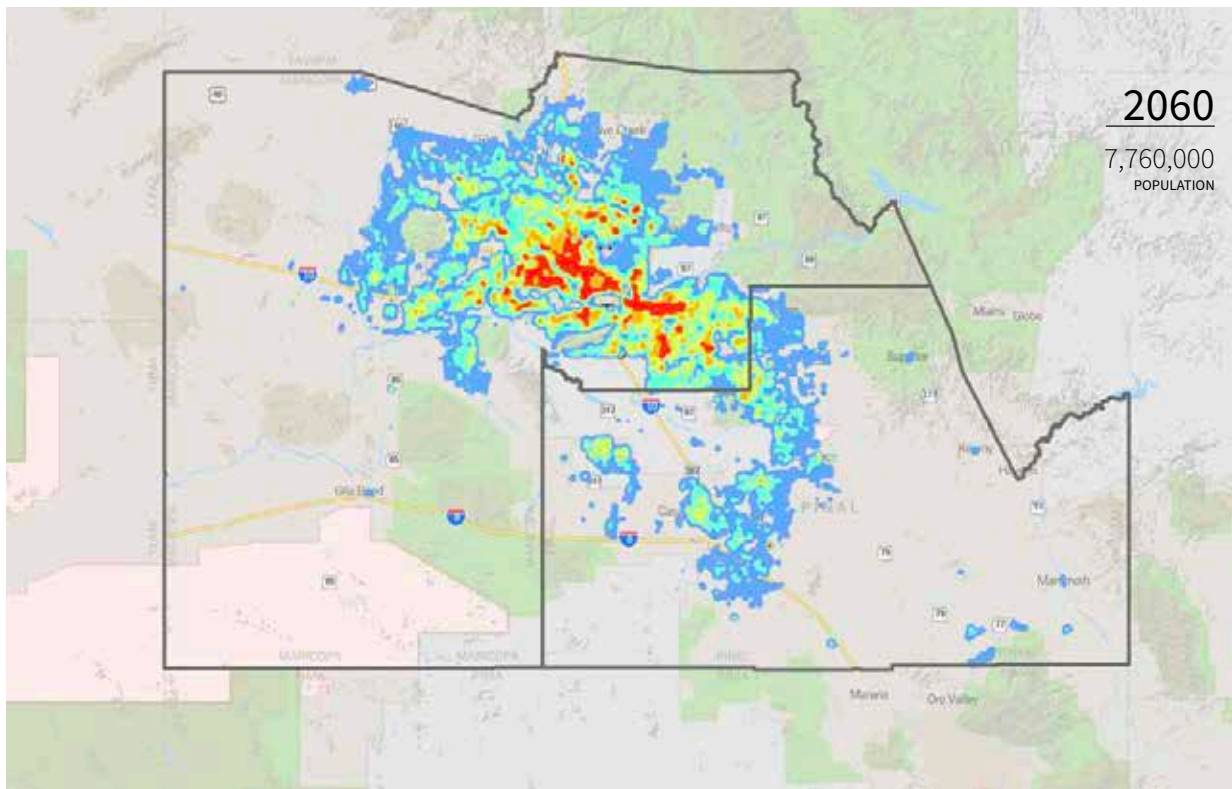
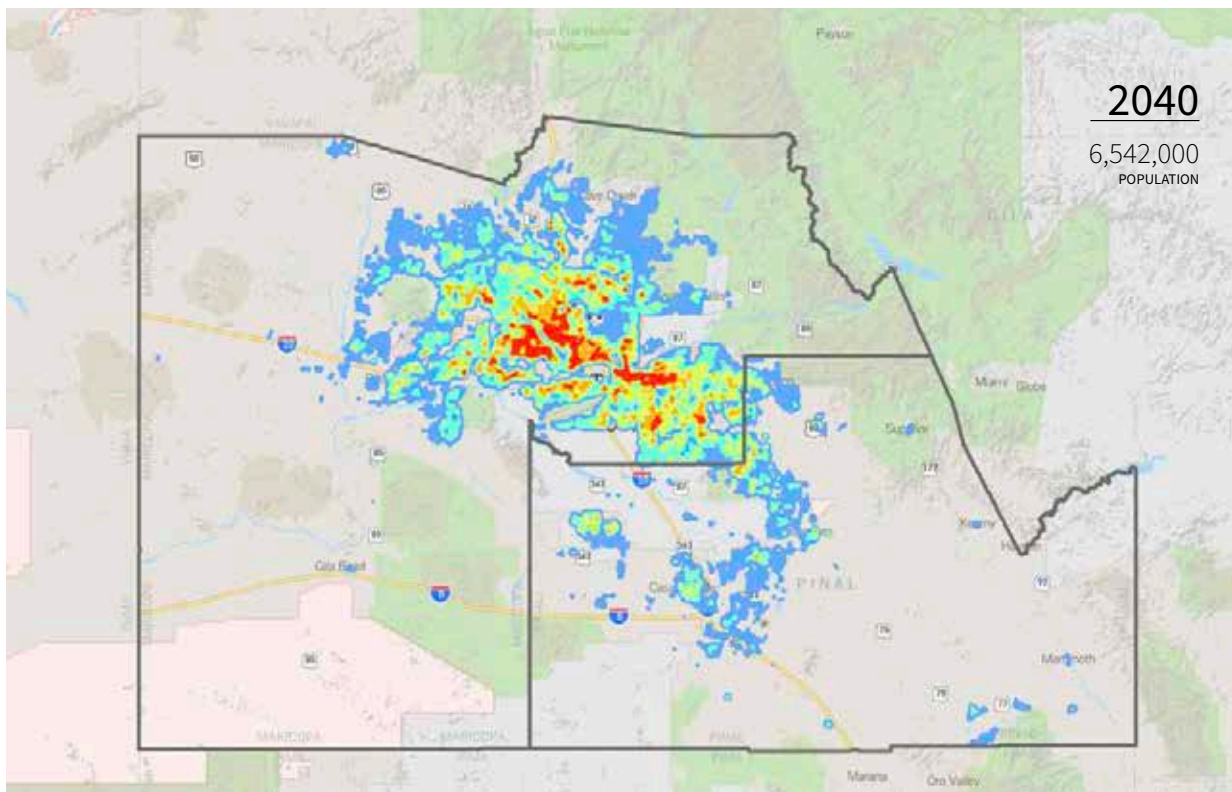
However, there is something unique to the Central Arizona region that stands apart and continues to draw people from across the country and the globe to visit, live, establish businesses, and stay here – and that is, the unparalleled beauty and distinctive character of the Sonoran Desert.



Maricopa and Pinal County Population History & Projections







The CAZCA region is situated at the northeastern reaches of the Sonoran Desert, a singular place on the planet, rich in diversity of people, cultures, landscapes, flora, and fauna. Although it is sometimes perceived as desolate, **the Sonoran Desert is the most biodiverse desert in North America, and the entire globe.**⁷ Breathtaking natural features, vibrant scenery, and thousands of miles of trails make this region a true outdoor haven.

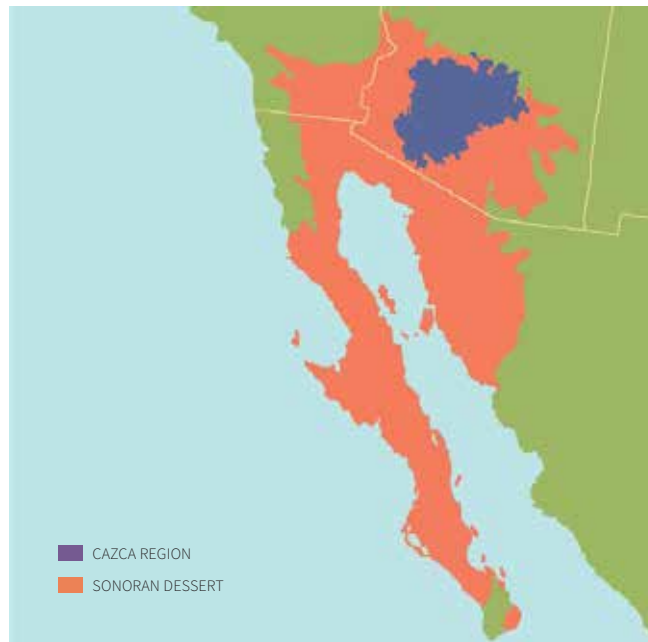
At least 130 species of mammals, more than 500 species of birds, 20+ amphibian species, as many as 1000 species of bees, over 250 butterfly species, 100+ species of reptiles, and about 30 species of native fish call this desert home.^{8,9} Nearly 4,000 species of plants thrive in the Sonoran Desert – more plants than have been documented in the Olympic rainforest.¹⁰ The Sonoran Desert is an extraordinary and flourishing place.

The beauty, livelihoods, and recreational opportunities afforded by the Sonoran Desert are critical to the region’s economy and quality of life and essential to the fabric of its communities. Open spaces and natural areas also contribute to controlling heat and recharging the aquifer when the ecosystem is balanced. Arizonans, whether born and raised or transplants from elsewhere, overwhelmingly and continually point to the value of natural areas in their lives. In fact, in poll after poll, state and local residents cite parks, preserves, open space, and trails as the state’s “greatest assets”¹¹ and what they “love most”¹² about where they live.

In more recent surveys and polls, Arizonans have stated their desire to protect parks and open spaces. In the 2020 Gallup and Center for the Future of Arizona Poll, 92% of Arizonans stated it was important to “preserve and protect its rivers, natural areas and wildlife,” and 82% stated it was important to “protect and expand open spaces for parks and outdoor recreation.” The other feedback in the environment category also shows the importance of protecting natural resources in Arizona.¹³

After 2020 both Maricopa County and Arizona State Parks and Trails collected public input around parks, preserves, open spaces, and natural resources. The Maricopa County Parks Vision 2030 included a call for public comment in 2022, resulting in a random sample of Maricopa County Residents that can be generalized to the overall population of the county. Included in those comments was an overwhelming sentiment to protect open spaces to keep ecosystems functioning, protect habitat, protect water resources, and ensure that these areas are available as a mental and physical health resource for all.¹⁴ In the Statewide Comprehensive Outdoor Recreation Plan (SCORP), residents of Maricopa County responded to the question of what is important to them with a lot of support for natural areas and open spaces: 74% indicated that large, nature-oriented parks primarily used for hiking, picnicking, or camping were important to them; and 73% indicated that open spaces in natural settings with very little development were important.¹⁵

Another need highlighted by these two survey efforts is accessibility and welcome. Extrapolated from the SCORP quantitative survey results, about 1 in 5 Maricopa County residents who did not recreate in the outdoors in 12 months prior to the survey didn’t feel welcome. In the Maricopa County public comments, there were many comments about accessibility and access to the parks for all members of our community.



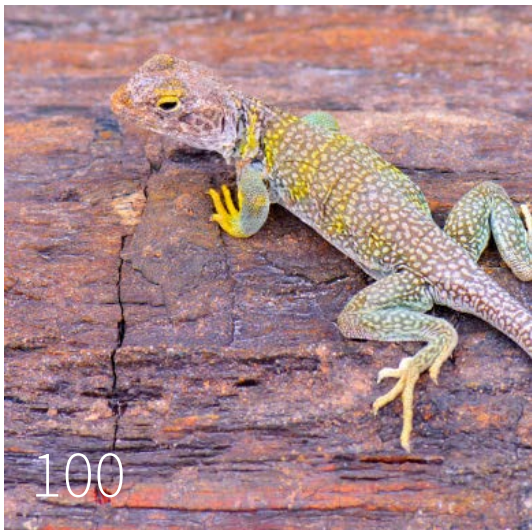
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4000



500



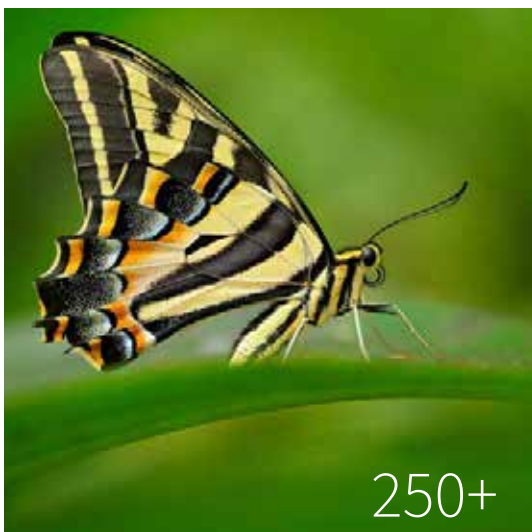
100



130



1000



250+



20+

Still, across the West, a real tension exists – typically, as we grow our cities and economies, we sacrifice the open space we love through both land conversion and degradation of habitat. In fact, for every doubling of human population, there is a tripling of land conversion to urban use.^{16, 17}

In May 2017, a Morrison Institute study found that 80% of Arizonans are concerned about the state’s natural environment and the level of care given to its natural resources. Sixty-eight percent of the study’s respondents believe that, “protecting the environment should be given priority, even at the risk of slowing economic growth.”¹⁸ In the Maricopa County Parks Vision 2030 public survey, there were many comments of concern about responsible development along the boundaries of open spaces and across migration corridors. One community member stated that habitat needs to be protected, “by making sure big enough open spaces are set aside in areas of rapid urban growth (the 303 corridor is exploding with development) and connected to protect wildlife and habitat as well as provide access for humans to enjoy the open spaces. A pocket park and a trail isn’t enough. Burros, bobcats, javelinas, roadrunners, etc. need a lot of space.”¹⁹

As our region grows toward +7 million people, as our legacy parks and preserves age and accommodate more and more visitors, as we begin to transform millions of acres of Sonoran Desert, these are the opportunities and challenges of our time. How do we nearly double in population, grow our economy, and at the same time sustain community character, parks and preserves, the climate, habitats, and quality of life? **Where is it best to grow? What is best conserved?**

As leaders and decision-makers consider these challenges and others, a collective theme has emerged toward sustainability and resilience requiring approaches that cut across environmental, social, and economic systems. Coordinated open space, or, “natural infrastructure” planning, has been called the “harmonic confluence between environment, development, and economy.”²⁰ When we plan for and coordinate open space conservation and management at the regional scale, multi-benefit, layered solutions emerge resulting in context-sensitive, cost-effective, politically viable, and highly implementable strategies for improving quality of life and protecting the environment.

The good news is that we can grow in ways that at once sustain our most valuable natural assets and services, promote thriving economies, and enhance regional quality of life. **But, it will not happen by accident.** That future requires a thoughtful plan for open space conservation and management, and sustainable climate and ecosystem friendly development, in the CAZCA region. It requires regional-scale strategies, real community engagement, tremendous coordination of efforts across organizations and fields of expertise, sustained inter-jurisdictional cooperation, financial investment, and a fundamental change in how we think about economic development, growth, land management, and conservation.

Conservation means development as much as it does protection. I recognize the right and duty of this generation to develop and use the natural resources of our land but I do not recognize the right to waste them, or to rob, by wasteful use, the generations that come after us.

- Theodore Roosevelt, Speech at Osawatomie, Kansas, on August 31, 1910

PHOTO © EDWARD BURTONSKY, COURTESY METIVIER GALLERY, TORONTO







OPEN SPACE IN CENTRAL ARIZONA





WHAT IS OPEN SPACE?

The State of Arizona (Revised Statute §11-935.01- 2016) defines open space as “any space or area characterized by great natural scenic beauty or whose existing openness, natural condition or present state of use, if retained, would maintain or enhance the conservation of natural or scenic resources, or the production of food and fiber.”¹ By this definition, and by widely accepted definitions of open space across the nation, open space is an inclusive term that embraces a broad array of lands such as parks and preserves, local and regional trail systems, natural and wilderness areas, waterways, forests and monuments, agricultural lands, natural resource lands, as well as a myriad urban open spaces and natural areas on private property. Open space may be protected or unprotected and public or private land and waters.

There are also more nuanced understandings of open space in local contexts. In some communities and neighborhoods, open space might mean the views, grounds for sports and games, or outdoor community gathering places. What communities consider to be open space, how it is perceived, how it is valued, and what it means in the lives of community residents and visitors varies from person to person, community to community.

An individual or community - or even an individual within a community - defines their particular perceptions of open space. Communities typically attach similar ideals to these spaces: conservation, recreation, contact with nature, social gathering, and physical, emotional, and spiritual wellbeing.



THE BENEFITS OF OPEN SPACE

More than the sum of its parts, an interconnected system of open space is a working landscape that provides extraordinary ecological, recreational, health, economic, and other benefits and services to our region.

ECONOMIC BENEFITS

Local, national, and global data agree that open space, parks, preserves, and trails contribute significantly to our economy. The American Planning Association, National Association of Realtors, National Association of Home Builders, Outdoor Industry Association, Arizona Forward, Arizona Office of Tourism and many other organizations describe economic benefits derived through open space. These include benefits such as:

- Direct consumer spending on outdoor recreation
- Direct jobs
- Positive effects on tourism
- Positive effects on real property values
- Increases in municipal revenues
- Enhanced ability to attract and retain businesses and workers
- Enhance ability to attract and retain affluent retirees

DIRECT CONSUMER SPENDING: In Arizona, outdoor recreation generated over \$31 billion in direct consumer spending in 2023,² an amount that has increased every year since the 2017 publication of the ROSS. Nationally, consumers spend more money on outdoor recreation economy than they do on pharmaceuticals, motor vehicles and parts, household utilities, gasoline and fuel, and education.³

DIRECT JOBS: In Arizona, the outdoor recreation industry generates more direct jobs (110, 794) than aerospace, defense and tech sectors combined (62,110). These jobs produce \$6.7 billion in wages and salaries annually.⁴

TOURISM: Many come to Arizona specifically for the outdoor resources, and many more come for other reasons but make it a point to take advantage of our open spaces and outdoor recreation opportunities. In 2023, \$265 million was spent on campgrounds in Maricopa County alone.⁵ Across the nation participation in outdoor recreation has grown, in 2022 168.1 million people engaged in outdoor recreation.⁶

PROPERTY VALUES: As early as the 19th century, researchers were documenting the positive connection between open space and property values. From 1870s research of the great Frederick Law Olmstead to more recent studies from Phoenix and cities across the planet, the significant positive effect of open space on neighboring residential and commercial property value is indisputable.

Enhanced property value is derived from people's willingness to pay a larger amount of money for a home located close to open space areas than they are for a comparable home elsewhere. A 2009 National Association of Realtors study found an average premium of 20% for properties proximate to open space.⁷ The 2021 Infrastructure and Jobs Act increased federal spending for transportation alternatives by 70%, which include trails and greenways. This also impacts property values. According to the National Association of Realtors, the average increase in value for proximity to a trail or greenway (as opposed to a large open space) is 3-5% but it can be as high as 15%.⁸

A Powerful Economic Sector

ANNUAL CONSUMER SPENDING, 2023*



*Bureau of Economic Analysis Interactive Data, ORSA Presentation, and AARP Data⁹

Municipal revenues: Increased property values and increased municipal revenues go hand in hand. Property tax is a critical revenue stream for cities. A consequence of enhanced property value is that property owners pay higher property taxes to governments. In effect, this represents a capitalization of open space into higher property taxes for the proximate land and buildings.

Municipalities also benefit by revenues generated through outdoor recreation, travel, and tourism. In Arizona, \$2.02 billion in state and local tax revenue was generated through outdoor recreation in 2023. Nearly all (93%) Arizonans consider open space “an essential component” of the state’s travel and tourism economy.¹⁰

An analysis prepared for the Arizona Office of Tourism states, “travel and tourism is one of the most important export-oriented industries in Arizona. Spending by visitors generates sales in lodging, food services, recreation, transportation and retail businesses – the ‘travel industry.’”¹¹ These sales support jobs and contribute tax revenue to local and state governments.

Open space not only improves quality of life, it generates economic benefit.

Enhanced attraction of businesses and workers:

In *Area Development*, Moody economists Dan White and Douglas Wynne write, “one of the areas most overlooked when comparing competing metro areas is a livability factor, or quality of life, that makes certain areas more attractive to individuals and thus businesses.” In that same analysis, “recreation” is identified as one of the four most influential quality of life variables for business start-ups alongside public safety, public education, and child welfare.¹²

In another *Area Development* article, Matthew Tarleton and Evan Robertson write about Quality of Place. In their article they look at how increasingly quality of place impacts decisions about where businesses reside. They state, “a compelling quality of place - a community’s attractiveness to existing and future residents and workers - is a competitive advantage.”¹³ The increasing interest of businesses in Arizona as a base of operations, and in

the Phoenix Metro Region specifically, shows a quality of place. The open spaces, natural areas, and outdoor recreation opportunities are a part of that quality.

Access to recreation and open space is an important factor for individuals, families, and businesses in deciding whether an area is a desirable place to live, work, and do business. Parks, preserves, trails, and other greenspaces play a significant role in attracting and retaining the creative class, young innovators, knowledge workers, and affluent and healthy retirees to the region.

ARIZONA

THE OUTDOOR RECREATION ECONOMY GENERATES

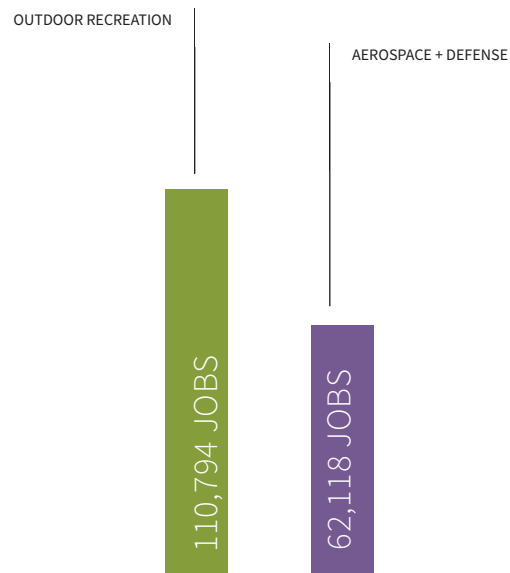
110,794 **DIRECT JOBS**

\$31 BILLION **IN CONSUMER SPENDING**

\$6.7 BILLION **IN WAGES & SALARIES**

\$2.02 BILLION **IN STATE & LOCAL TAX REVENUE**

Note: All numbers are from 2023 and come from from the Bureau of Economic Analysis except tax revenue, which comes from the Arizona Office of Tourism

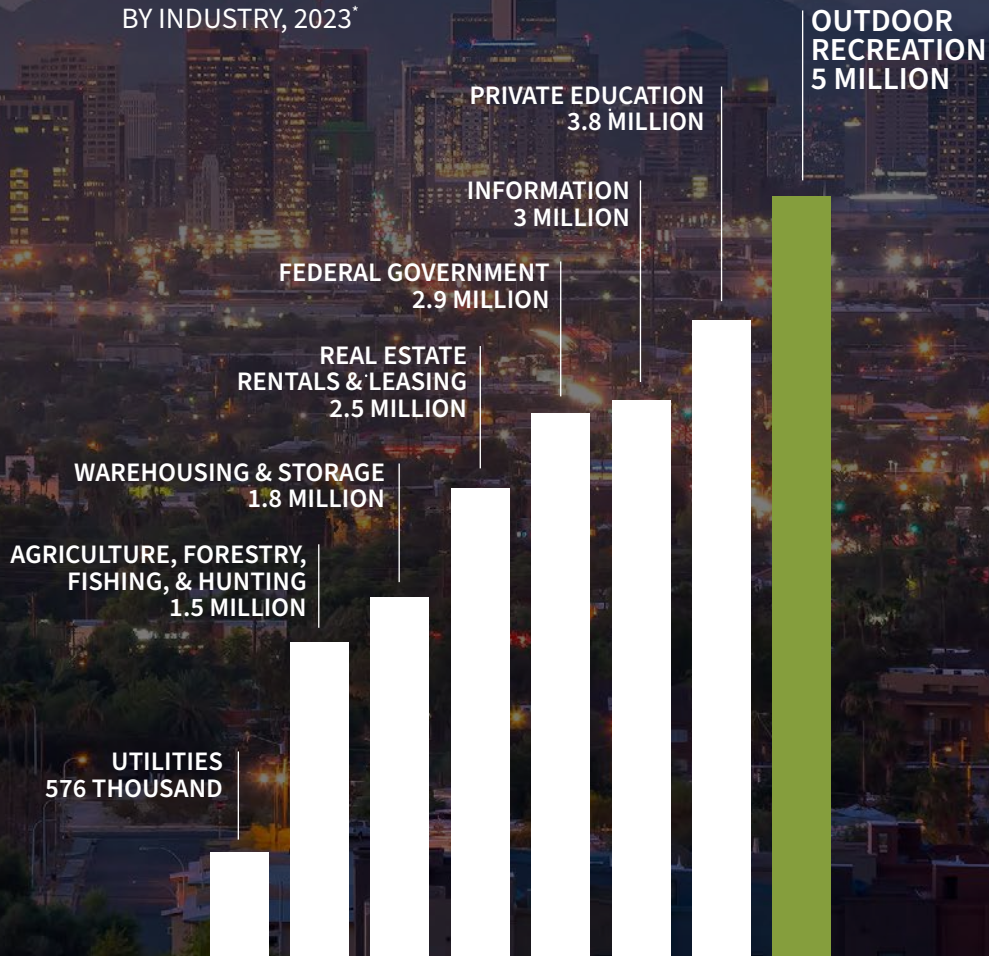


More jobs in Arizona **DEPEND ON OUTDOOR RECREATION** than on the aerospace and defense sectors combined.

Note: 2023 Outdoor jobs number is from Bureau of Economic Analysis, and Aerospace + Defense is from Greater Phoenix Economic Council Primary Industries data.

US Job Comparison

BY INDUSTRY, 2023*



*Bureau of Labor Statics and Bureau of Economic Analysis



CONSERVING BIODIVERSITY

Aside from the benefits plants, animals, and microbes obviously enjoy by their own conservation, nearly all the other benefits and services individuals and communities derive by open space are established through biodiversity.

Biodiversity creates the web of life, and through it and the interactions between and among species and their environments, human life is made possible on this planet.^{14,15} High biodiversity also confers resilience in the ecological functioning of the landscape.

Well-planned and connected open spaces create extensive networks of habitat, allowing species to thrive, migrate, and adapt to changing conditions, thereby conserving biodiversity.

ENVIRONMENTAL

Open spaces convey indispensable environmental benefits to regional communities. Among other things, open spaces and natural infrastructure filter pollutants and dust from the air, protect water quality and quantity, reduce run off, regulate storm water, enhance ground water recharge, reduce soil erosion, absorb carbon dioxide, regulate local climate, and help to mitigate the “urban heat island” effect and other climate change challenges.¹⁶

Nearly all of the other benefits and services individuals and communities derive from open space are established in biodiversity.



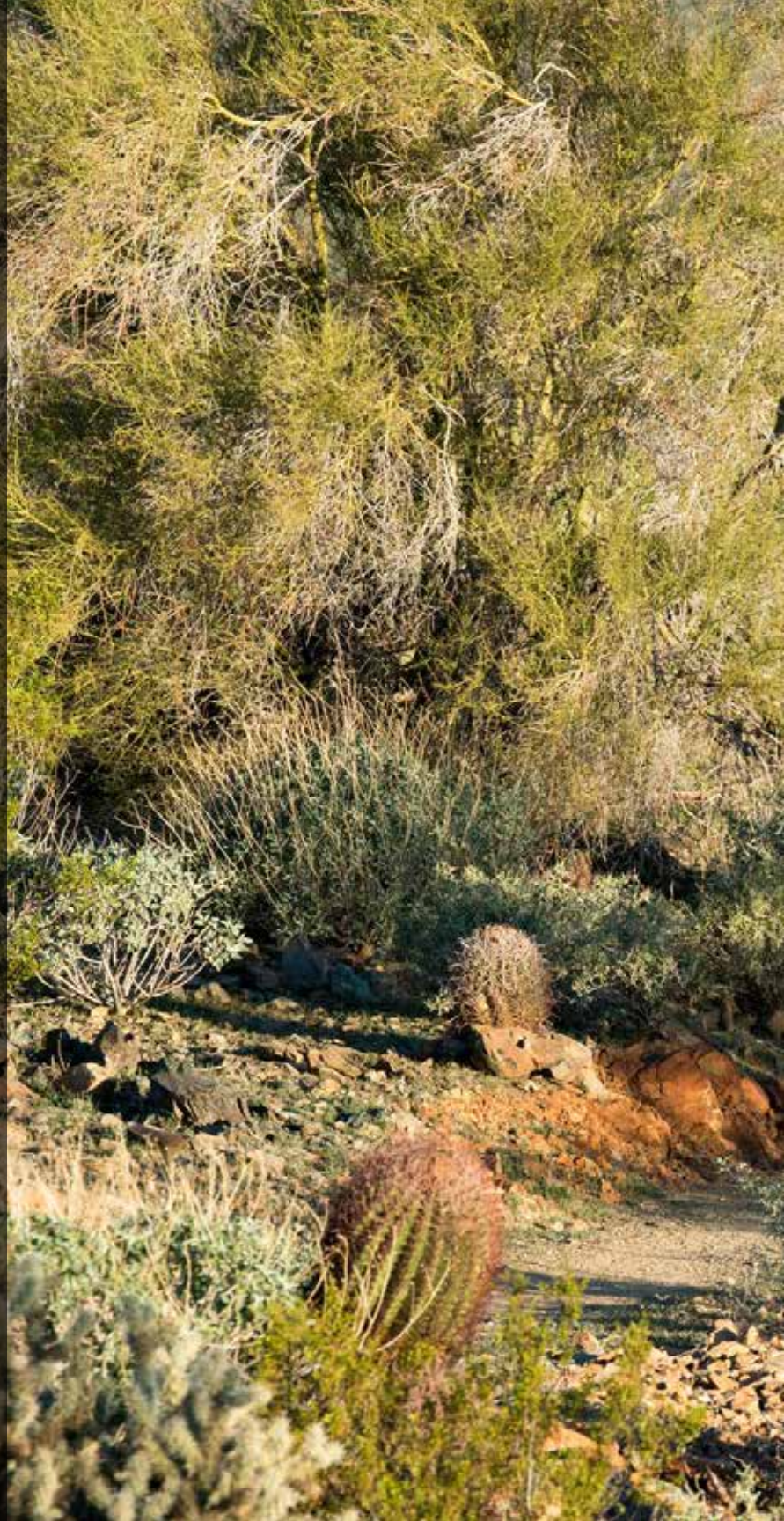
RECREATIONAL

Biking, hiking, walking, running, horseback riding, hunting, fishing, birding, wildlife viewing, boating, climbing, photography, camping, backpacking, watersports, picnicking, and more – open space affords communities the opportunity to play, exercise, and enjoy the outdoors close to home.

PHYSICAL AND MENTAL WELLBEING

Overwhelming evidence suggests that people who live near open space spend more time outdoors and exercise more. Research also indicates direct correlations between exposure to green spaces and improved mental health and well-being; increases in happiness and positive emotions; reduced stress and anxiety; increased immune function; reduced respiratory, stroke, and circulatory mortality; and lower rates of lung, breast, and colon cancers.¹⁷⁻²² Time in nature has also been shown to bolster creativity, confidence, and problem solving skills.²³

The evidence of these benefits is so overwhelming that doctors have begun prescribing nature as medicine! Jo Barton and Mike Rogerson say “simple exposure to nature environments is psychologically restorative [and] has beneficial influences on individuals’ emotions and ability to reflect on life problems.”²⁴ Elizabeth Hoge and Charlotte Wulf also support leveraging open space for mental wellbeing. In their article for the Anxiety & Depression Association of America they point out that individuals residing in cities are 21% more likely to develop an anxiety disorder and 39% more likely to develop a mood disorder. They point to taking advantage of any open space and natural area, even an imagined one, to try to counter these risks. They point to a study from Australia suggesting that spending even just 30 minutes in an open space of any size one time a week can reduce the prevalence of depression by 7%.²⁵

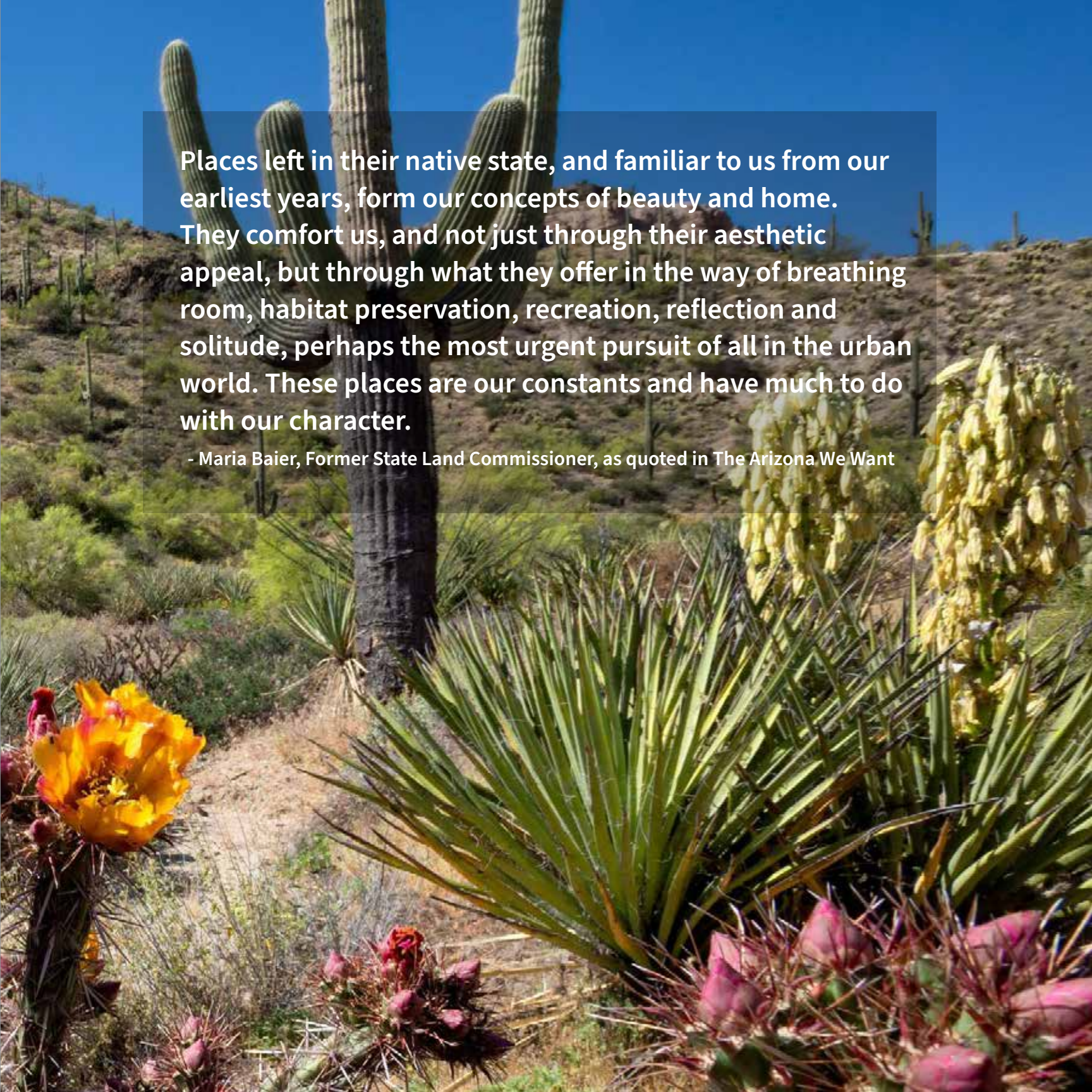




SENSE OF PLACE & SOCIAL CAPITAL

Open space is a defining character and point of pride for our region, providing a sense of place in space and time and local distinctiveness. Parks, preserves, trails, and other open spaces serve as gathering places to socialize, engage in discourse, express culture, relax, build community cohesion, educate, and connect with the natural world. Again and again people across the country support parks and open spaces. In 2016 there were 86 park, conservation, and restoration measures on ballots across the US, of those 68 passed.²⁶ This shows that no matter what divides us, open spaces and the various services they offer can bring us together.





Places left in their native state, and familiar to us from our earliest years, form our concepts of beauty and home. They comfort us, and not just through their aesthetic appeal, but through what they offer in the way of breathing room, habitat preservation, recreation, reflection and solitude, perhaps the most urgent pursuit of all in the urban world. These places are our constants and have much to do with our character.

- Maria Baier, Former State Land Commissioner, as quoted in *The Arizona We Want*

A Legacy of Open Space Conservation

Central Arizona has a rich history of community and civic leaders, governments, and conservation organizations aligning around shared goals to preserve local open space amidst development. In the 1920s, community leaders such as Dwight Heard, James Dobbins, Steven Mather, and U.S. Senator Carl Hayden banded together to save a favorite recreational spot from encroaching mining to establish South Mountain Park. In the 1950s, the Maricopa County Parks Commission was created, and the County acquired Estrella Mountain Regional Park, the first in what would become the largest County park system in the nation. In the 1960s, U.S. Senator Barry Goldwater was instrumental in seeing the iconic Camelback Mountain preserved as a park. The 1970s saw the conservation of the Phoenix Mountains Preserve through the efforts of community champions led by Dorothy (Dottie) Gilbert, Ruth Hamilton, Maxine Lakin, and Margaret Hance among others, and then Phoenix Mayor John Driggs.

Efforts continued through the 1990s when, thanks to the energies of the McDowell Sonoran Land Trust (now the McDowell Sonoran Conservancy) and Scottsdale residents, the City of Scottsdale passed a sales tax to support the acquisition of what is now the McDowell Sonoran Preserve, the largest municipal preserve in the nation.

The 1990s also saw the power of bi-partisan cooperation when lawmakers passed the Arizona Desert Wilderness Act, thereby protecting rare, wild places like the Harquahala Mountains, Big Horn Mountains, Signal Mountains, Hummingbird Springs, and the North and South Maricopa Mountains.

The list goes on– the Phoenix Sonoran Preserve, Peoria’s Sunrise Mountain, Glendale’s Thunderbird Conservation Park, and Buckeye’s Skyline Regional Park are other examples of local open space conservation successes made possible by the confluence of planning, collaboration, community engagement, and governmental vision and leadership.



Revisiting Regionalism in Open Space Planning

These efforts and successes have been critical to conserving an enviable collection of open space across Central Arizona. However, as the region's population exploded, conservation and investments in maintenance of natural areas did not keep pace. Urban encroachment coupled with ever-increasing visitorship (at times, equal to or greater than that of popular national parks²⁷) and diminishing resources for management has resulted in the isolation and degradation of many of these natural resources for people and nature. Today this continues, even as communities try to preserve open spaces in their area.

Sustaining natural areas - and the quality-of-life components they convey - for residents of Central Arizona alongside the growth and development anticipated for the next 20 years will require a regional approach to open space planning and conservation. As is the case for transportation and economic development, regional and collaborative planning for open space conservation will deliver far more powerful outcomes than planning in isolation. **Planning at the scale where central cities, suburbs, and rural areas can be considered together is critical to sustaining and enhancing the ecological, economic, social, and public health benefits derived from open space.**

A NETWORK OF OPEN SPACE CAN COHESIVELY RESPOND TO CHALLENGES AND OPPORTUNITIES IN:



WATER QUALITY AND QUANTITY



EXTREME HEAT & ISSUES OF CLIMATE CHANGE



ECONOMIC DEVELOPMENT



STORMWATER MANAGEMENT



PUBLIC HEALTH



HABITAT CONSERVATION



COMMUNITY AND ECOLOGICAL CONNECTIVITY



HAZARD MITIGATION



OUTDOOR RECREATION



In January 2016, with significant human and financial resources from the Nina Mason Pulliam Charitable Trust, Desert Botanical Garden, Maricopa County Parks and Recreation Department, the McDowell Sonoran Conservancy, the Sonoran Institute, The Nature Conservancy, the Trust for Public Land, and more than thirty other participating organizations, the Central Arizona Conservation Alliance convened a multi-scale, stakeholder-driven, strategic planning process in an effort to reconcile our region's values for economic growth and conservation of our natural and cultural heritage. Through hundreds of collaborative workshops and meetings, and with copious research and outreach, that process has resulted in this Regional Open Space Strategy for Maricopa County (ROSS).

In 2023 the CAZCA Staff and Steering Committee members undertook a review of the ROSS as a whole, and in particular the Objectives and Action Items under each goal. Qualitative interviews conducted in prior years showed that the four main goals outlined in the ROSS were still relevant and critical to conservation work in Central Arizona. Interviewees stated that the four goals in the ROSS still stand strong and are relevant as main conservation goals, and the goals have even increased in importance in recent years with compounding impacts of climate change, drought, and increased recreational engagement with parks, open spaces, and natural areas. So, when looking at updating the ROSS, the CAZCA staff and Steering Committee representatives knew that there was still a strong foundation in the ROSS with the four main goals guiding all of CAZCA's collaborative work, and that those goals should remain in place.

As a part of the ROSS review, attendees at the 2023 CAZCA All Partners meeting reviewed the objectives and action items under the four goals to determine if they should remain, be modified, or be removed. After the All Partners meeting, other individuals and organizations submitted their input through a survey distributed via email. Finally, when all the recommendations and corrections were gathered, an updated version of the Objectives and Action Items were reviewed at the 2024 CAZCA All Partners meeting.

Once all input was gathered the CAZCA staff and a small team worked to analyze all the comments and make suggested changes to the document. The CAZCA staff then created a new draft for review by that team, the CAZCA Steering Committee, and other partners





identified as early reviewers. Finally, the draft was reviewed by attendees of the 2024 CAZCA All Partners meeting for any final changes. What you have before you now is the result of all that hard work and input from our community.

Through the review and update process the biggest feedback was that the ROSS is largely an evergreen text. We have updated the objectives and action items to align them with the goals as ongoing work for CAZCA and the partners. We have also more clearly acknowledged the impact of climate change and the work that it has created. We face many challenges in the years to come if we want to conserve parks, open spaces, and natural areas for future generations. We also have a lot to do to acknowledge and connect those areas back to those who inhabited and worked the land from time immemorial; the indigenous people and tribes who were here before settlers. Understanding the history of the land, and how it has changed over time, is important if we plan to help the land survive climate and other anthropogenic threats. All we do is to ensure that this beautiful, diverse, and incredibly unique ecosystem endures and thrives for all life (human, animal, and plant) that inhabit it.

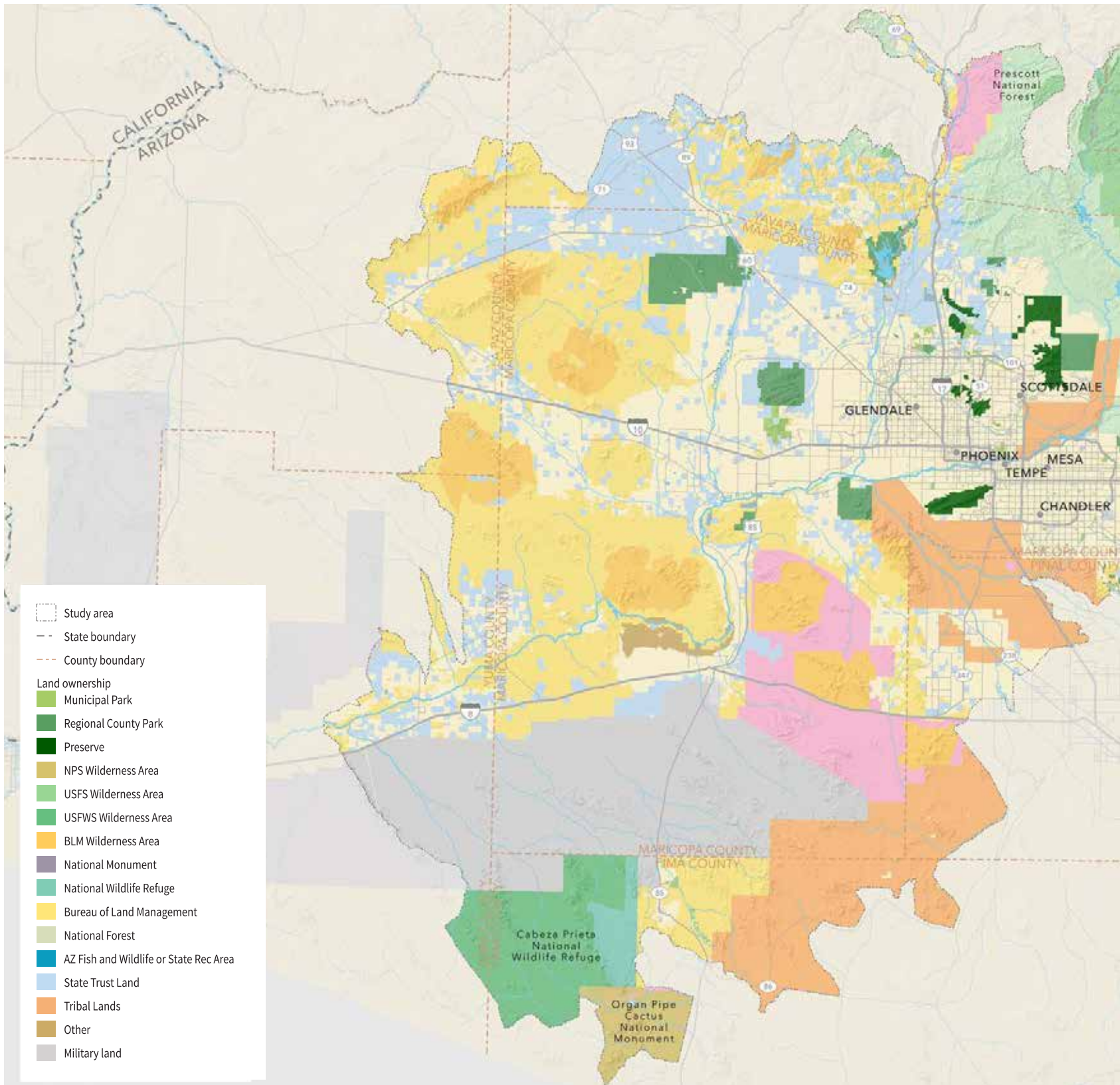
The 2024 ROSS is a second iteration road map and action agenda. It is in no way exhaustive. It lays out fundamental initial steps toward unified, cohesive, regional open space conservation, but acknowledges there still exists gaps in information, collaboration, and coordination. In the ROSS, we put forward clear, concise objectives and specific on-the-ground, highly achievable strategies inclusive of the social, cultural, environmental values of communities. When fully implemented, the ROSS will deliver a connected, distinctive, well-managed open space network that will enhance the unique character of the region and enable Central Arizona to realize the full benefits of open space for people, environment, and economy.

The ROSS is both strategic and tactical, simplistic where necessary, and more sophisticated where possible. As the community of practice tests ideas and advances its collective capacities and understandings, we will continue to revisit, adapt, and revise the ROSS. It is a living, breathing, responsive strategy and the commitment of the Central Arizona Conservation Alliance is to continue to nurture and forward its goals for a sustainable preserve system that supports healthy ecosystems and healthy communities.

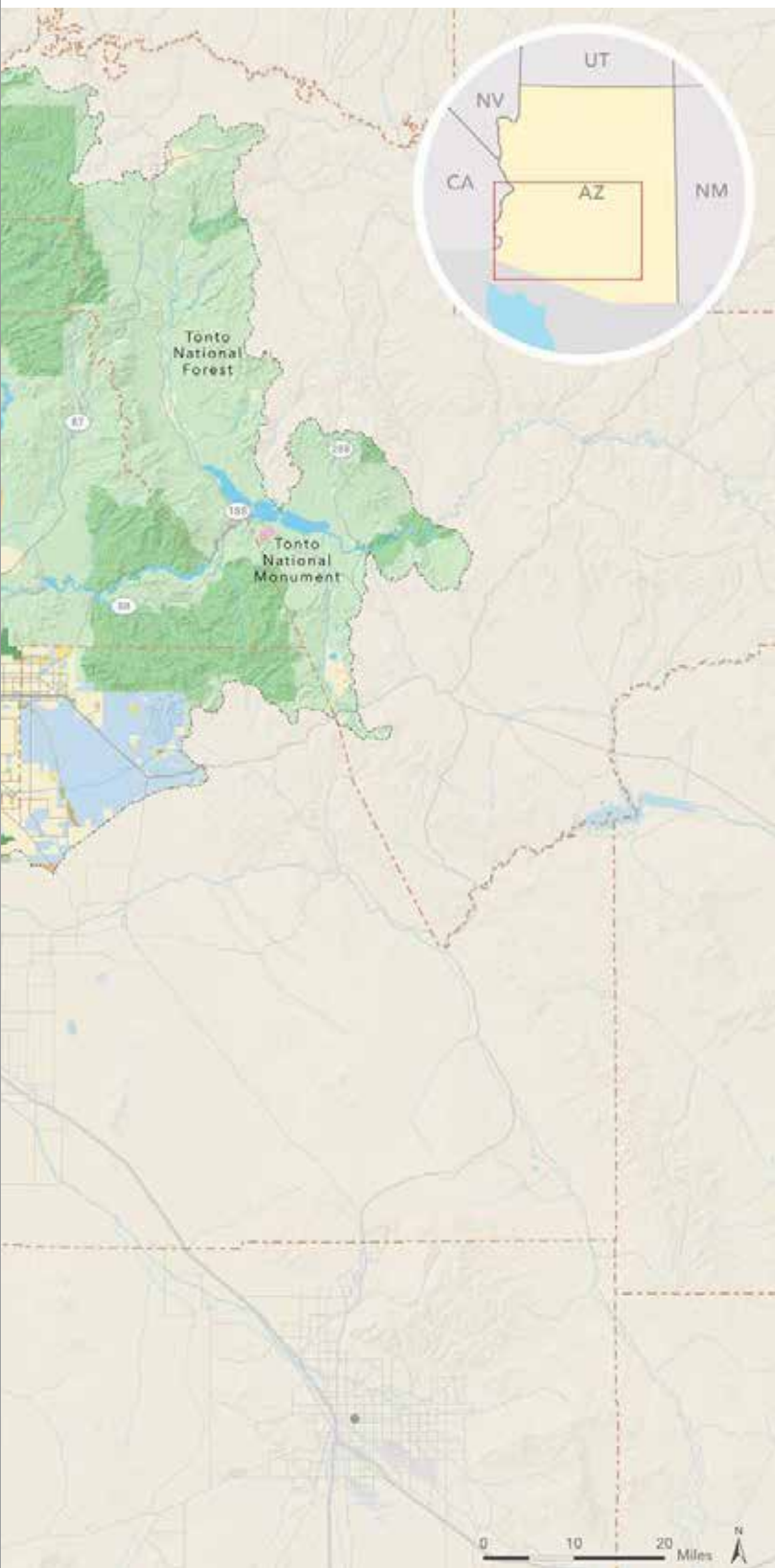




THE REGIONAL OPEN SPACE STRATEGY



- Study area
- State boundary
- County boundary
- Land ownership**
- Municipal Park
- Regional County Park
- Preserve
- NPS Wilderness Area
- USFS Wilderness Area
- USFWS Wilderness Area
- BLM Wilderness Area
- National Monument
- National Wildlife Refuge
- Bureau of Land Management
- National Forest
- AZ Fish and Wildlife or State Rec Area
- State Trust Land
- Tribal Lands
- Other
- Military land



The Regional Open Space Strategy Study Area

There are two project boundaries for the Regional Open Space Strategy – one socio-political and the other ecological. The logic for this is simple: while decision-making spheres, policies, and populations are defined by distinct lines on a map, these lines are nonexistent to plants, animals, water, and ecological processes. Some ROSS opportunities are realized through policy, necessitating the sociopolitical boundary (e.g. land trades) while others (e.g. wildlife connectivity) necessitate expansion and cooperation beyond County lines.

The socio-political boundary for the ROSS is focused mainly (though by no means exclusively) around Maricopa County. Maricopa County spans more than 5.9 million acres in Central Arizona and is home to more than 4 million people. It is currently the fourth most populous county in the United States, larger by population than 24 states, and first in numeric growth as of 2022.¹

The ecological boundary for the ROSS extends across Central Arizona to encompass relevant watersheds and high-integrity habitat as defined by the Arizona Game and Fish Department and the Environmental Systems Research Institute (ESRI). This boundary will ensure that the region is able to tackle issues of wildlife connectivity, water resources, climate change, invasive species management, and restoration at scales that are ecologically meaningful.

Planning Process

Through an extensive challenges and opportunities mapping process and four years' collaboration and dialogue, CAZCA partners identified four key opportunity areas for expanded discussion and regional planning. Working groups assembled and began to meet specifically and articulate goals around these specific challenges:

- **Land Conversion and its Pace, Scale, and Distribution**
- **Degradation of Natural Areas**
- **Increasing Disconnect Between People and Nature**
- **Insufficient Coordination and Collaboration in Open Space Planning and Conservation Actions**

Working groups articulated four responsive goals:

GOAL 1: Protect & Connect

Ensure a robust network of natural areas to sustain habitat, provide opportunity for recreation, support clean air and water resources, and improve resilience to drought, extreme heat, and flooding.

GOAL 2: Sustain & Restore

Identify and engage best practices in land management and restoration to sustain and enhance native biodiversity, positive recreational experiences, and socio-economic benefits connected with the Sonoran Desert.

GOAL 3: Love & Support

Build champions and the constituency of support and action for Sonoran Desert conservation by raising awareness and connecting people with nature.

GOAL 4: Coordinate & Elevate

Build upon the CAZCA foundation to ensure and amplify regional open space planning, management, and conservation successes.

Developing Strategies

Working groups transformed to become technical “Goal Teams” drawing on expertise from within and far beyond the partnership. Goal Teams were tasked with clarifying their overarching goal, defining objectives, and calling out specific tactical actions that would directly address the priority challenges, or would build the necessary capacity to address these challenges. Teams were asked to place great emphasis on ensuring that actions were implementable in the context of Central Arizona today.

From the outset, the Regional Open Space Strategy for Central Arizona has been a highly collaborative, iterative process drawing upon tremendous human resources and expertise from across the region and decade's worth of achievements and efforts from the broader open space stakeholder community. ROSS objectives and associated actions have evolved within and between the ROSS technical Goal Teams, with input from the CAZCA partners, and through concerted and sustained efforts to solicit direction and feedback from across the regional space.

In addition to catalyzing regional open space conservation and coordination, the ROSS works to unify, integrate, and support goals and objectives defined in existing municipal open space plans, general plans, sustainability strategies, and other regional, state, national and international conservation strategies.



ROSS GUIDING VALUES AND PRINCIPLES

Focus on what is most important

Make the strategy clear and concise

Emphasize implementation from the start



A young fox with grey and tan fur is walking on a dirt path. The path is covered with fallen yellow and brown leaves. The background is a dense thicket of green and brown foliage. The text 'GOAL 1' is centered in a white box above the fox, and 'PROTECT & CONNECT' is written in white below it.

GOAL 1

PROTECT & CONNECT



2024 ROSS with input and expertise from:

Arizona Game and Fish Department

Pat Barber, Cheri Boucher, Keith Knutson,
Ginger Ritter, Kelly Wolff

Arizona Sportsmen for Wildlife Conservation

Jim Unmacht

Arizona State University CAP LTER

Jeffrey Haight

Audubon Southwest

Tice Supplee

City of Apache Junction Parks and Recreation

Liz Langenbach

City of Phoenix Natural Resources Division and Parks and Recreation Department

Jarod Rogers

Desert Botanical Garden

Challie Facemire, Terry Haines (volunteer),
Kim McCue, Marisol Ortiz, Aryn Musgrave

Desert Foothills Land Trust

Vicki Preston

McDowell Sonoran Conservancy

Jessie Dwyer, Dan Gruber (steward)

Maricopa County Parks and Recreation Department

RJ Cardin

Phoenix Mountains Preservation Council

Elizabeth Goff, Stacia Hurst

Phoenix Park Stewards

Heidi Cordova

Salt River Pima-Maricopa Indian Community Environmental Protection and Natural Resources Division

Victoria Olmstead

White Tank Mountains Conservancy

Laurel Arndt, Sharma Torrens, Dana
Warnecke

2017 ROSS with input and expertise from:

Arizona Game and Fish Department

Cheri Boucher, Julie Mikolajczyk, Scott
Sprague, Dana Warnecke,

Arizona Department of Water Resources

Einav Henenson

Arizona State University

Paul Coseo, Lindsey Collins, Anita Hagy
Ferguson (student), Allyce Hargrove, Jan
Schipper, Chris Thomas (student)

Arizona State Parks

Leigh Johnson (formerly)

Center for Native and Urban Wildlife

Natalie Case

City of Peoria

John Sefton

Desert Botanical Garden

Stacie Beute, Carolyn Flower, Kim McCue

Desert Foothills Land Trust

Vicki Preston

Gila River Indian Community and Northern Arizona University

Russell Benford

Maricopa Trail and Parks Foundation

Jan Hancock, Larry Snead

Maricopa County Parks and Recreation Department

RJ Cardin

McDowell Sonoran Conservancy

Dan Gruber, Helen Rowe

Salt River Pima-Maricopa Indian Community

Amy Miguel

Sonoran Institute

Laurel Arndt, Ian Dowdy

The Nature Conservancy

Maggie Messerschmitt

Trust for Public Land

Bob Heuer, Michael Patrick, Breece Robertson

U.S. Bureau of Reclamation

Deborah Tosline

U.S. Forest Service Tonto National Forest

Robert Madera

White Tank Mountains Conservancy

Les Meyers

GOAL 1: PROTECT & CONNECT

Ensure a robust network of habitat blocks and corridors to connect and sustain native plant and animal communities, provide opportunities for recreation, support clean air and water resources, and improve resilience to drought, extreme heat, flooding, and other climate change impacts.

Background and Rationale

Since the early 20th-century, Maricopa County's population has grown almost 800%, ushering a massive land conversion from natural open space to agriculture and/or urban space.¹ According to regional build out projections for the year 2040, more than 2,000,000 acres of Sonoran Desert in Maricopa County are planned for development.² This extraordinary growth of population and built infrastructure presents significant challenges to sustaining natural ecosystems, plant and animal populations, climate change resilience, high-quality recreation opportunities, and community identity and way of life.³ Losses in these areas have wide-ranging and long-term consequences.

Beyond land use change itself, the way land is converted and how land conversion is distributed across the landscape contributes greatly to the negative effects of land use change. Conventional grid development with hard edges between the natural and built environments disrupts wildlife connectivity, alters hydrology, and results in tremendous loss and fragmentation of habitat. In the Arizona State Parks and Trails survey for the Statewide Comprehensive Outdoor Recreation Plan 78% of residents agreed that providing habitat and ecosystem preservation and restoration is important.[#]

Recognizing that we cannot conserve everything, but that we need and/or desire to conserve some key elements of the landscape, it stands to reason that if equipped with the tools and information to do so, leaders would place high priority on regional open space designations that deliver the most value and benefit to nature, communities, and residents.

The ability to sustain natural systems and high-quality opportunities for people to enjoy nature depends upon growing and connecting the region's system of protected areas, increasing our capacity and willingness to develop in ways that retain natural infrastructure, and coordinating open space conservation at the regional scale. Actions identified under Goal 1 aim to build capacity, improve access to information, develop decision-support mechanisms, and expand regional coordination to conserve the region's most strategically important lands and waters. Several of the actions identified in this goal will inform and facilitate successes in Goals 2, 3, and 4.

Successful implementation of these actions will greatly improve the region's capacity to achieve an interconnected system of open space capable of sustaining natural ecosystems; the economic, social, health, and ecological services they deliver; and high-quality recreational amenities that Maricopa County's residents and visitors value.

Goal 1 Successes Highlights

CAZCA, The Nature Conservancy, and the Trust for Public Land

The Greenprint natural resources infrastructure viewer was built and made accessible to the public in 2017. Since it was published the Trust for Public Land has hosted the tool, and CAZCA has worked with them on updates every two years.

New layers have been added since Greenprint was first created, including the Native Lands Map.

New training materials were created for Greenprint to make it easier for new users to use.

White Tank Mountains Conservancy

Collaborated with major developers in the west valley to identify a wildlife corridor concept that connects the White Tanks to public lands. They also collaborated with the City of Buckeye to create a connectivity report that will inform and shape development in the west valley. The Connectivity Report was completed 2024.

Salt River Pima-Maricopa Indian Community - Environmental Programs and Natural Resources Division

Utilized trail cameras to monitor wildlife.

Arizona Game and Fish

The Arizona Game and Fish Statewide Wildlife Action Plan has been updated and their website now includes conservation opportunity ideas.

Central Arizona-Phoenix Long-Term Ecological Research (CAP LTER)

Currently involved in various biodiversity research projects.

Parks and Preserves in the CAZCA Region

Several parks and preserves have conducted flora inventories, including North Mountain in Phoenix and the White Tank Mountain Regional Park.

OBJECTIVE 1.1

Use Greenprint to identify and map natural infrastructure, habitat suitability, and open space conservation priorities. Develop a comprehensive regional open space vision inclusive of priorities spanning urban, suburban, rural, natural, and wilderness areas.

ACTION	DESCRIPTION
Action 1.1.1	<p>Analyze natural infrastructure assets against defined criterion (below) to determine relative conservation value.</p> <ul style="list-style-type: none">• Ecological value• Socio-cultural value• Economic value and cost• Development pressures• Degree of threats, if any• Gaps in protections• Gaps in recreational opportunities• Gaps in public access to nature• Low hanging fruit• Local and community priorities• Existing land encumbrances• Potential for acquisition• Potential uses• Potential for connectivity to other assets• Partnership possibilities
Action 1.1.2	<p>Leverage existing research to identify and link areas of work and engage with partners to fill gaps in research (using wildlife cameras, tracking key species, roadkill surveys, wildlife telemetry, social surveys from groups like ASU's CAP LTER, etc.).</p>
Action 1.1.3	<p>Use Greenprint to identify "greenways" within and outside of urban areas and engage partners to create a collaborative approach within the region, particularly in partnership with municipalities.</p>
Action 1.1.4	<p>Develop, update, and publish open space visions with mapped priorities.</p>
Action 1.1.5	<p>Create a guidance document that integrates habitat with development planning. Leverage partners' work in this area, such as the White Tank Mountains Conservancy Conceptual Wildlife Linkage Report 2024, Buckeye Wildlife Corridor Best Practices Guide 2021, and Flood Control District of Maricopa County's Best Practices for Alternative Flood Hazard Mitigation Measures.</p>

OBJECTIVE 1.2

Keep the Greenprint tool relevant and accessible, and advocate for integration of natural infrastructure concepts, planning, and open space conservation priorities into decision-making.

ACTION	DESCRIPTION
Action 1.2.1	Update and improve the Greenprint on an as needed basis to meet the needs of decision-makers, support multi-benefit regional open space solutions, and advance regional priorities.
Action 1.2.2	Create a brief overview document for Greenprint that will serve as an introduction and sales pitch for the tool.
Action 1.2.3	Create a new training document and video that will be accessible and understandable to planners, developers, engineers, other practitioners, decision-makers, to any member of the general public. Research current resources and determine how they can be leveraged. Include natural infrastructure concepts and use of the GIS-based Greenprint. Keep updated as needed.
Action 1.2.4	Advocate for adoption and integration of the Greenprint by urban and rural developers, businesses, state, and local governments.
Action 1.2.5	Offer presentations and trainings to university students studying sustainability, urban planning, and related fields.
Action 1.2.6	Advocate for integration of natural infrastructure planning concepts into university and continuing education curriculum for planners, engineers, urban designers, architects, developers and other applicable career fields.



OBJECTIVE 1.3

Identify best management practices and guidelines for wildlife and habitat restoration including climate change considerations in the Sonoran Desert region. Leverage trails, washes, and floodplains in design plans.

ACTION	DESCRIPTION
Action 1.3.1	Continue to support and coordinate communication and outreach of field research experiments designed to test techniques to improve knowledge and best practices of habitat restoration and habitat/migration corridor conservation.
Action 1.3.2	Identify, document, and share extant best practices from around the region.
Action 1.3.3	Conduct experiments designed to fill research gaps in best practices of habitat restoration and habitat block / migration corridor conservation in the region. Document research and experiments for future research and education campaigns.
Action 1.3.4	Work with landowners to support critical habitat trading, use of conservation easements, and other methods to protect critical habitat blocks and water resources for wildlife. Leverage tools like the Arizona Game and Fish Department Wildlife Conservation Opportunities Areas map.
Action 1.3.5	Advocate for reductions in light pollution to aid nocturnal wildlife and protect their habitat and migration areas. Encourage use of light hoods, reduced lighting, or red light use for species like the bats of the Sonoran Desert.
Action 1.3.6	Advocate for corridor preservation in new development plans. Work with business and business affiliated organizations to reach out to development and corporate groups. Leverage tools like those created by Arizona Game and Fish Department for Wildlife Planning.

OBJECTIVE 1.4

Keep record of migration corridors (including waterways, buffer, and potential future corridors), ensure there is public education as to why these areas are important and advocate for their conservation and protection.

ACTION	DESCRIPTION
Action 1.4.1	Leverage Greenprint identified migration corridors and buffers to highlight critical areas of protection and work with advocates to landowners in those corridors and buffers to protect their accessibility by wildlife.
Action 1.4.2	Advocate for wildlife crossings over extant and new highways/roads. Work with the state departments, impacted towns, and federal land managers to apply for funding and conduct outreach and education around wildlife crossings to the public.
Action 1.4.3	Advocate for waterway protections with property owners and developers. Ensure there is public education about why waterways are important migration corridors and habitat.
Action 1.4.4	Fill research gaps on climate change impacts to waterways, and how that will affect migration corridors and biodiversity. Ensure information is accessible to the public (write public facing articles, leverage social media, host outreach events, etc.).

OBJECTIVE 1.5

Maintain biodiversity in the Sonoran Desert by documenting, monitoring, and managing plant and animal species and advocating for improved human-wildlife interactions.

ACTION	DESCRIPTION
Action 1.5.1	Identify species in each park and keep a species list to track biodiversity growth, biodiversity loss, and invasive incursions. Conduct periodic surveys to keep the species list updated and watch for biodiversity loss.
Action 1.5.2	Find research gaps around biodiversity loss in the Sonoran Desert and work to fill these gaps, particularly around keystone species like saguaros and carnivores. Long-term research is critical for biodiversity preservation.
Action 1.5.3	Ensure research is being conducted on climate change and anthropogenic impacts to wildlife and plant life in the Sonoran Desert, including changes and effects on corridors, buffer areas, and habitat blocks. Make that information accessible to the public in order to gather support for conservation work and wildlife protections.
Action 1.5.4	Advocate for the importance of keeping wildlife wild, improving human-wildlife interactions. Ensure there is public education around human's role in biodiversity loss, the importance of corridors and connectivity, and best practices for human-wildlife coexistence. Leverage resources such as Arizona Game and Fish Department's Living with Wildlife resources.







GOAL 2

SUSTAIN & RESTORE



2024 ROSS with input and expertise from:

Arizona Department of Forestry and Fire Management

Jessi Szopinski

Arizona State Parks and Trails

Sarah Rose Webber

City of Apache Junction Parks and Recreation

Elliott Anuta

City of Phoenix Natural Resources Division

Claire Miller

City of Phoenix Parks and Recreation

Cassandra Castellano, Donald Domann, Mike Faustich

Desert Botanical Garden

Challie Facemire, Marisol Ortiz

Desert Seed Resource Center

Kara Barron

Maricopa County Parks and Recreation Department

Juanita Armstrong, RJ Cardin

McDowell Sonoran Conservancy

Jessie Dwyer, Mary Fastiggi, Paul Staker (steward)

National Forest Foundation

Jeny Davis

Native Plant Society

Lisa Rivera

Salt River Pima-Maricopa Indian Community Environmental Protection and Natural Resources Division

Victoria Olmstead

US Forest Service - Tonto National Forest

Rose Henderson

White Tank Mountains Conservancy

Jim Hoffmann (volunteer), Adam Levin

2017 ROSS with input and expertise from:

Arizona Department of Transportation

Kristin Gade

Arizona Game and Fish Department

Cristina Jones

Arizona State Parks Department

Leigh Johnson (formerly)

Arizona State University

Kathleen Andereck, Megha Budruk, Marena Sampson,
Danika Setaro, Sally Wittlinger

Audubon Arizona

Tice Supplee

Bureau of Land Management

Lisa Thornley

Borderlands Restoration

Center for Native and Urban Wildlife

John Wesser

City of Phoenix Parks and Recreation Department

Claire Miller

Colorado Plateau Native Plant Program

Community Member

John Balfour

Desert Botanical Garden

Kara Barron, Stacie Beute, Steve Blackwell,
Carolyn Flower,
Wendy Hodgson, Kevin Hultine, Matt King,
Kimberlie McCue, and volunteers Cass
Blodgett and Dawn Goldman

Friends of Verde River Greenway

Chip Norton, Anna Schrenk

Maricopa County Parks and Recreation Department

Jennifer Waller

McDowell Sonoran Conservancy

Helen Rowe, Melanie Tluczek, and stewards

Okanogan Trail Construction

Jack Gilcrest

Signature Botanica

Steve Plath

Salt River Pima-Maricopa Indian Community

Thomas Krebs

Society for Ecological Restoration

SW Chapter meeting 2016 workshop participants

Sonoran Institute

Laurel Arndt

Southwest Seed Partnership

Melanie Gisler, Maggie Parrish

Superstition Area Land Trust

Tom McDonald

U.S. Geological Survey's Western Ecological Research Center

Todd Esque

U.S. Forest Service's Northern Arizona Native Plant Materials Program

Verde Native Seed Cooperative

Molly McCormick, Kate Watters

Verde River Basin Partnership

Kathy Davis

White Tank Mountains Conservancy

Les Meyers

GOAL 2: SUSTAIN & RESTORE

Identify and engage best practices in land management and restoration to sustain and enhance native biodiversity, positive recreational experiences, and socio-economic benefits connected with the Sonoran Desert.

Background and Rationale

With its iconic saguaros and warm winter climate, the Sonoran Desert is a prime destination for visitors seeking recreation and respite. Millions upon millions of residents and tourists recreate in the Maricopa County and Central Arizona region, which is rich in protected natural areas. Thanks in large part to the vision of mid-late 20th century community and governmental leaders who, amidst rapid urbanization, had the foresight to set aside nearly 200,000 acres of land as parks and preserves, the region is home to the largest set of urban protected areas in the nation.¹ These lands are incredible ecological, economic, and social assets. Additionally, in the Arizona State Parks and Trails survey for the Statewide Comprehensive Outdoor Recreation Plan, 80% of Maricopa County residents agree that protecting natural and cultural resources (both those open to the public and those that are not) is important.

However, this legacy preserve system is under strain. With visitation topping that of popular national parks,² the system is stressed by a myriad of direct visitor impacts, such as prohibited off-trail hiking, biking, and off-road vehicle use. These impacts, coupled with historic grazing, fire impacts, invasive species incursions, impacts from climate change and the urban heat island, urban encroachment, and limited resources for resource management, serve to greatly undermine the sustainability and resilience of these regional assets.³

The ability of land managers to effectively mitigate degradation, ensure positive user experience, and apply principles of sustainable natural resource management depends upon: 1) the capacity to engage in long-term monitoring, 2) a determination of limits of acceptable change, 3) knowledge of invasive, non-native plant distributions and removal techniques, 4) an understanding of best practices for restoration and rehabilitation, and 5) access to genetically appropriate native plant materials.

Developing these capacities requires coordination and collaboration on a regional scale. Actions under this goal will lead us towards a coordinated approach to better understand the threats, constraints, and solutions required for sustainable natural resource management and the long-term preservation of our regional open spaces system. Undertaking these actions will require financial and organizational support as well as coordination with private and public sectors. Several objectives and actions in Goal 2 will inform the work of Goal 3.

Goal 2 Successes Highlights

Arizona State University Central Arizona-Phoenix Long-Term Ecological Research (CAP LTER)

Surveyed the zoo and have a wide variety of research projects and topics.

Desert Botanical Garden

In summer of 2018, Steve Blackwell along with Raul Puente, Natalie Melkonoff, and Kristen Kindl conducted a salvage of endangered Arizona hedgehog cactus near Superior, Arizona. The 64 salvaged plants were removed to make way for the demolition of the old Pinto Creek bridge constructed in 1949 to make way for a new bridge capable to handling today's automobile traffic. The goal of the project was to allow the plants to rehabilitate until the completion of the new bridge in which they would then be returned and planted into adjacent areas surrounding the construction site. In 2022, the plants were returned to the site where they planted and watered and currently being monitored to determine long-term success. In addition, the Garden maintains several of the original mother plants as well as clones of other mother plants that were returned to the wild that can be used to supplement any plants that died after transplanting as well as collect seeds from for future seed banking and future potential grow-outs and reintroduction.

Desert Defenders

Collaboratively working to find new management strategies for stinknet (*Oncosiphon pilulifer*). The group has also participated in stinknet pulls and seed ball making events and is in the process of creating informational materials for the public about how to identify and manage invasive species.

City of Chandler

Established a free seed library at the Chandler Public Library that is constantly being added to as they harvest more native seeds. They also have plans to rebuild burrowing owl habitats within the city.

City of Phoenix

Updating the Phoenix Sonoran Preserve master plan and focusing on connectivity.

Created the South Mountain Park Greenhouse.

City of Phoenix and City of Scottsdale

Have been tracking user numbers and economic impacts in their open spaces.

City of Phoenix, Gateway Community College, and CAP LTER

Conducted bee research and river corridor restoration.

Lower Gila River Collaborative

Developed monitoring protocols for the Lower Gila River area.

Maricopa County

Parks & Recreation

Parks & Recreation conducted visitor use surveys and monitoring strategies to establish baselines for the parks, created a Natural Resource Plan with a wide coverage of topics, and is working on updating the Park Master Plans for Cave Creek Regional Park, McDowell Mountain Regional Park, and Spur Cross Ranch Conservation Area. They also received a \$40K grant to help conduct a floristic quality assessment.

Parks & Recreation created a native seed garden and propagation area. They have plans in the future to add a greenhouse.

Parks & Recreation was a co-founder for Desert Defenders conducts invasive plant removals and monitoring.

Parks & Recreation is conducting butterfly monitoring.

Flood Control District

Flood Control District is conducting water monitoring to check quality and quantity in Gila River, Hassayampa, and Salt River Pima-Maricopa Indian Community.

McDowell Sonoran Conservancy

Tracking visitor trail impacts and have a variety of ongoing projects including research on mule deer, tortoises, and night use of fauna on the preserve.

Currently doing long-term monitoring, including “If/Then” strategies and invasive species monitoring..

Conducted research on fountain grass and buffelgrass mitigation. The reseach on fountain grass has been published, and the buffelgrass research is in the publication process.

Southwest Vegetation Management Association

Working collaboratively to hold trainings and workshops as well as create more resources for land managers about stinknet.

Salt River Pima-Maricopa County

Created and instituted an equipment cleaning protocol to reduce the spread of invasive plant species.

Sonoran Seed Collaborative

Working to create a list of key native species for growth and propgation as well as best practices for seed collection and storage.



Objective 2.1

Detect and monitor any significant change to biodiversity and water courses occurring in protected areas due to stressors (i.e. climate change, urbanization, recreation, pollution, etc.).

ACTION	DESCRIPTION
Action 2.1.1	Form a subcommittee or working group to prioritize specific monitoring or research needs; particularly the impact of climate change, urbanization, recreation, invasive species, pollution, etc. in the local ecosystem.
Action 2.1.2	Based on the selected priorities, conduct and maintain a literature review as well as an inventory of available data. Identify appropriate methods and experimental design for priority research or monitoring. Consider national protocols, e.g. BLM, NPS, IVUMC, NISC, or integration with ASU's Central Arizona Phoenix Long Term Ecological Research project's sites/data.
Action 2.1.3	Identify mechanisms to implement regional monitoring and/or research programs. Analyze and interpret data to make management recommendations.
Action 2.1.4	Monitor identified areas for response to restoration and treatment efforts, and for any additional biodiversity loss over time.

Objective 2.2

Regularly update our understanding and data of the social, environmental, and economic benefits to recreation and non-recreation users associated with the Sonoran Desert.

ACTION	DESCRIPTION
Action 2.2.1	Conduct literature review and mine data to determine the suite of benefits resulting from the open space. Leverage existing survey and poll results, and any similar studies already completed, to add to this data; such as the Arizona State Parks and Trails Statewide Comprehensive Outdoor Recreation Plan. Consult with visitors and tourism bureaus for visitation data.
Action 2.2.2	Through a series of surveys and collecting data from other organizations' work in this area, identify the primary social, environmental, and economic benefits associated with recreation and non-recreation activities in and around Sonoran Desert ecosystem, as well as the associated risk of income loss that would result from ecosystem degradation.
Action 2.2.3	Share this information across the partnership and with the public within a specific timeframe on an annual basis, or more often if needed. Align this messaging with a national conservation focused day or month.

Objective 2.3

Conduct research to determine acceptable levels of impact from visitor use, provide guidance on developing monitoring strategies, and use information derived from monitoring to evaluate management actions for the parks and preserves.

ACTION	DESCRIPTION
Action 2.3.1	Conduct literature review and data mining to determine best practices for conducting Visitor Use Management research. Identify any similar studies that have already occurred.
Action 2.3.2	Identify desired conditions for resources and visitor experiences, select indicators and establish thresholds. Compare and document differences between existing and desired conditions, and identify visitor use management strategies and actions to achieve desired conditions. Share collected information to ensure all organizations have access to strategies and actions that have not worked and those that have proved useful.
Action 2.3.3	Enable and assist public land managers in monitoring to ensure thresholds are not exceeded and take appropriate management action based on documented conditions (adaptive management).
Action 2.3.4	Conduct trainings and workshops or partner with other organizations to provide trainings on Visitor Use Management for public land managers.

Objective 2.4

Identify best management practices and guidelines for native plant propagation and restoration, wildlife and habitat restoration including climate change considerations.

ACTION	DESCRIPTION
Action 2.4.1	Support and coordinate communication and outreach of field research experiments designed to test techniques to improve knowledge and best practices of restoration and native plant materials propagation. ⁴
Action 2.4.2	Conduct experiments designed to fill research gaps in best practices of restoration and native plant materials propagation in the region. ⁴

Objective 2.5

Ensure a reliable supply of genetically appropriate native plant material for restoration, revegetation, and other needs.⁵

ACTION	DESCRIPTION
Action 2.5.1	Assess the need for native plant materials regionally. Survey public land agencies and private entities to calculate long-term seed needs. These needs will include materials for restoration, catastrophic events, and urban infrastructure projects, etc.
Action 2.5.2	Assess the capacity of private, public, and tribal producers to meet the need for native plant materials. ⁶ Inventory seed collections available for amplification and assess capacity for propagating local ecotypic seed and other materials in private and public sectors within our ecoregion.
Action 2.5.3	Identify the key species to include in a propagation program. Select an initial set of 10-15 species within plant functional groups and plant community types. Consider future climate change scenarios and “prestorage” in selecting a robust seed mix. Create a database on plants, germination requirements, storage requirements, propagation techniques, etc. that will help practitioners select species mixes appropriate for their site and needs.
Action 2.5.4	Develop and share existing tools that enable managers to make ecologically based decisions in selecting a seed mix or plant palette for ecological restoration, such as plant community composition maps, seed transfer zones, ⁷ and the plant germination database described in Action 2.5.3.
Action 2.5.5	Develop projects to collect and propagate local seed and appropriate plant material to meet regional needs. ⁸ Analyze capacity and demand, then conduct assessments and develop appropriate mechanisms to develop a propagation program incorporating existing resources. Possible programs may include a networked model, a collective, a native seed farm, or a catastrophic-event seed bank.



Objective 2.6

Identify best practices and enact a strategic plan for invasive species management in the Sonoran Desert region.

ACTION	DESCRIPTION
Action 2.6.1	Identify high priority invasive plants and animals in the region. Compile a list of invasive species occurrence in Central Arizona parks and preserves and prioritizes species and areas to include in mapping, informational, and strategic efforts. Create a list of relevant regional and national invasive species programs. ⁹
Action 2.6.2	Work with partners to set a standardized system for community science invasive species mapping and strategic efforts. ¹⁰ Consider the creation of a certification to streamline detection, treatment and monitoring activities, a set of minimum standards for control to simplify this process and maximize returns on the project investment in volunteer training.
Action 2.6.3	Conduct field research to improve knowledge of best practices. Identify gaps in best practice guidelines and develop studies to improve knowledge.
Action 2.6.4	Post relevant information regarding invasive plant and animal management strategies for high priority species. Ensure that all partners can easily access and share information about management decisions, improve strategy efforts, and provide a single comprehensive method for inputting mapping and monitoring data. ¹¹
Action 2.6.5	Create a regional strategic plan for invasive plants and animals, including a contingency plan if prioritized invasive species eradication and control is not attainable. ¹² To the extent possible, align with existing Arizona and U.S. efforts. There will be three major components of the regional strategic plan: <ul data-bbox="388 921 683 1008" style="list-style-type: none">• Management• Regional Collaboration• Legislative Action
Action 2.6.6	Work with partners to develop and implement park-specific action plans. In addition to the regional strategy, parks and preserves will also likely require invasive management plans. Offer guidelines and support in this area. ¹³
Action 2.6.7	Expand public understanding and increase awareness of how invasive species impact natural resources, communities and economies, and what they can do to help stop the spread. Leverage existing programs, working groups, and events. ¹⁴



GOAL 3

LOVE & SUPPORT





2024 ROSS with input and expertise from:

Ak-Chin Indian Community Environmental Programs

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Arizona Department of Forestry and Fire Management

Amanda Fitzhugh, Jessi Szopinski

Arizona Association for Environmental Education

LoriAnne Barrett Warren, John Bello

Arizona State University CAP LTER

Monique Franco

City of Apache Junction Parks and Recreation

Liz Langenbach

City of Chandler Nature Center

Derek Gerson, Cadia Hernandez

City of Tempe Parks and Recreation

Gabriel Sabori

Deer Valley Petroglyph Preserve - Arizona State University

John Bello

Desert Botanical Garden

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Liberty Wildlife

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Arizona State University, Global Institute of Sustainability

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Elizabeth Gonzales, Dawn Morford

Salt River Pima-Maricopa Indian Community

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Sonoran Institute

Laurel Arndt, Ian Dowdy

Trust for Public Land

Jason Corzine

GOAL 3: LOVE & SUPPORT

Build champions and a coalition of support and action for Sonoran Desert conservation by raising awareness and connecting people with nature.

Background and Rationale

Personal experiences and connections with nature bring us joy, relieve stress, facilitate physical and mental well-being, boost our creativity and intellect, calm our minds, and provide a deep sense of place in space and time. Even so, an ever-growing body of evidence suggests that people today are spending significantly less time in nature than previous generations, raising deep concerns across fields of expertise and practice. The Environmental Protection Agency estimates that the average American spends 98% of their time indoors or in transit.¹

Especially concerning is a growing disconnect between children and nature. A study from the Kaiser Family Foundation found that kids ages 8 to 18 spend an average of 7.5 hours a day, 7 days a week, plugged into computers, TV, video games, music, cell phones, etc.² Other research found that more children know how to play a computer game and open a web browser than swim or ride a bike.³ This is not just an urban challenge – across nations, this children-nature disconnect is playing out throughout rural, suburban, and urban communities.

The challenges presented by this disconnect are many. When we do not spend time in nature, we cannot realize the physical and mental benefits nature provides. Furthermore, research also suggests that simply having information about nature is not sufficient for a person to value nature, be motivated to act in its interest, and support its conservation. Experiences in and connections with nature, above and beyond mere awareness of nature, are critical as a foundation of support for nature conservation. Best said by the International Union for Conservation of Nature's #NatureForAll initiative, "New approaches are required to broaden support and mobilize action for conservation with new audiences across all sectors." Ensuring access to open spaces and natural areas for all is imperative.

The objectives and actions identified in Goal 3 aim to engage people, especially young people, across Central Arizona to experience, connect with, and share their love of nature. These actions will grow champions and advocates for Sonoran Desert open space conservation. Actions under Goal 3 underpin the successes of Goals 1 and 2 and work in close concert with Goal 4.

The wildest and remotest place on Earth, the most imperiled species on Earth, will be protected only if people care about nature where they live.

- Ted Trzyna, Urban Protected Areas: Profiles and best practice guidelines⁴

Goal 3 Successes Highlights

Sonoran Insiders

Sonoran Insiders have increased their reach on Instagram each year. In 2023 the Sonoran Insider account reached 17 thousand people, and the Ambassadors reached over 70 thousand followers from their accounts. The followers of the Sonoran Insiders have increased every year. This group has created a platform of consistent messaging, focused around outreach to and education of the public.

Desert Defenders

Desert Defenders have attended outreach events and have created educational materials for the public about invasive plant species.

Central Arizona Conservation Alliance

CAZCA has conducted outreach events including organized invasive species pulls, created educational social media posts, attended partner outreach events, and worked with local news outlets on several articles to educate the public.

CAZCA has also created a hub for sharing information across the partnership and with the public, through the CAZCA website, social media, and other means of outreach.

Arizona State Parks and Trails

The Statewide Comprehensive Outdoor Recreation survey raised awareness and gathered input from Arizona residents on the outdoors and recreation.

Arizona Association for Environmental Education

AAEE is working on an environmental literacy plan on the Sonoran Desert ecosystem.

McDowell Sonoran Conservancy

MSC has created educational materials and shares them with partners and others.

Open Sci Ed

Open Sci Ed created free science education materials and curriculum for educators at all levels.

Arizona Sustainability Alliance

AZSA has been hosting an urban forestry initiative where participating teachers learn through hands-on activities how green assets assist in all three pillars of sustainability. Teachers are introduced to a K-12 curriculum that is Arizona based and consists of 33 different activities that teachers can do with their students.

CAP LTER

Dr. Kelli Larson has conducted research on public perceptions of native desert landscaping in urban areas, and created outreach materials to educate the public on the benefits of creating habitat in their yards.



Objective 3.1

Raise awareness, encourage responsibility, and inspire people to love, appreciate, and care for the Sonoran Desert.

ACTION	DESCRIPTION
Action 3.1.1	Develop and implement a regional open space marketing strategy.
Action 3.1.2	Go beyond “preaching to the choir.” Conduct outreach, engage, and develop partnerships with people and organizations representing the full diversity of Central Arizona communities.
Action 3.1.3	Communicate broadly and often the myriad of benefits provided by the Sonoran Desert open space specifically and nature broadly (economics, health, quality of life, biological benefits).
Action 3.1.4	Develop and advocate for the implementation of a framework for eco-regional environmental education for learners of all ages. This framework would contain common Sonoran Desert ecoregion themes across parks, preserves, and trail systems. Coordinate with partners to inventory resources and establish local education “hubs” where this material will be featured.
Action 3.1.5	Communicate and educate about the history of the Sonoran Desert, including how modern society has changed the ecosystem, indigenous use of nature and their areas of influence, etc.
Action 3.1.6	Raise awareness about and educate on topics under the working groups (invasive species, connectivity, native plants, etc.).
Action 3.1.7	Motivate the next generation by compiling extant, creating, and sharing K-12 outreach and education materials and working with teachers and educators.
Action 3.1.8	Raise awareness around making the outdoors a safe space for others and the importance of accessibility.
Action 3.1.9	Raise awareness around indigenous ancestral homelands, the tribes that once lived on, worked, and managed this land, and raise awareness about the tribes that currently live here and their ties to the land.

Objective 3.2

Get people into nature. Facilitate learning, experiences, and connections with the Sonoran Desert through formal and informal opportunities. Aid in breaking down barriers to access.

ACTION	DESCRIPTION
Action 3.2.1	Create and maintain a resource hub for educators with existing nature play and environmental education curriculum and teaching opportunities through workshops and professional development. Develop more education resources to connect children with nature and increase literacy around the Sonoran Desert ecosystem.
Action 3.2.2	Develop and advocate for implementation of a framework for eco-regional environmental education for learners of all ages. This framework could be used as a part of an environmental literacy plan, and would contain common Sonoran Desert ecoregion themes across parks, preserves, and trail systems.
Action 3.2.3	Familiarize schools, groups, and communities with open space parks and preserves and opportunities for experiences in nature and outdoor learning spaces, leveraging CAZCA's Parks and Preserves Map. Consider developing and implementing a program analogous to Dept. of Interior's "Every Kid in a Park" program.
Action 3.2.4	Research existing tools, apps, websites, and calendars that house opportunities and information on open space events, volunteering, and other kinds of engagement. Determine if existing tools are comprehensive or could become comprehensive.
Action 3.2.5	Identify barriers to access (transportation, cost, knowledge, etc.) by leveraging resources like the Statewide Comprehensive Outdoor Recreation Plan. Develop ways to aid the public in overcoming these barriers.
Action 3.2.6	Identify ways to make the outdoors more accessible for a wider variety of people, work together to implement ideas and plans and to educate the public about why accessibility is important.
Action 3.2.7	Identify ways to make the outdoors feel like a safe space for those who have not always felt safe in nature or trail settings. Collaborate with groups who already work in this area to help with their projects and programs.
Action 3.2.8	Utilize social and traditional media to cross-promote regional opportunities to connect with nature.

Objective 3.3

Build influential champions for conservation of the Sonoran Desert, and educate political, private, non-profit, and other organizations in support of open space conservation in the Sonoran Desert.

ACTION	DESCRIPTION
Action 3.3.1	Continue “CAZCA Labs” to foster collective learning, resource sharing, training, and implementation support for Sonoran Desert restoration. An essential function of the Lab will be to identify and fill information gaps for best practices. Host speaker and workshop series to share information, restoration projects and challenges, and elicit input from participants. Post information presented in the series and create a web-based forum for discussion and information sharing.
Action 3.3.2	Connect with experts, community leaders, and influential people who work in the business, education, environmental community to build a base of public advocacy.
Action 3.3.3	Engage an existing coalition to motivate state and local elected officials to pursue increased acquisition and management of conservation areas in the Sonoran Desert. Leverage the State Wildlife Action Plan Map from the Arizona Game and Fish Department.
Action 3.3.4	Identify the network of local/state/regional officials who will champion open space conservation in the region.
Action 3.3.5	Develop relationships with the business community. Make visible the connection between the Sonoran Desert (place), quality of life, and economic prosperity.



A night photograph of a desert landscape. In the foreground, there is a large saguaro cactus with a single arm. The ground is covered with dry, yellowish grass and some dark shrubs. In the background, there are dark, rocky mountains under a starry night sky. The Milky Way galaxy is visible, stretching across the upper part of the frame. The overall scene is dark and atmospheric.

GOAL 4

COORDINATE & ELEVATE



Goal Two

Protected and restored open spaces managed to preserve the natural, economic, recreational, and social values connected with the Sonoran Desert.

2024 ROSS with input and expertise from:

Arizona Association for Environmental Education
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Arizona Department of Forestry and Fire Management
Russell Benford

Arizona Municipal Water Users Association
Jacob Perez Laurent

Arizona State Parks and Trails
Dawn Collins, Neil Large, Sarah Rose Webber

Arizona State University, CAP LTER
Becky Ball, Kelli Larson

Bureau of Land Management - Arizona
Cristina Francois

Desert Botanical Garden
Challie Facemire, Kimberlie McCue

Central Arizona Cactus and Succulents Society
Kim Andrews, Don Begley

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Cassandra Castellanos

City of Scottsdale Parks and Recreation Department
Dave Myers

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Michael Spykes

Hispanic Access Foundation
Rebecca Rodriguez

Maricopa County Parks and Recreation Department
RJ Cardin

Maricopa Trail and Parks Foundation
Jan Hancock

McDowell Sonoran Conservancy
Dan Gruber (steward), Melanie Tluczek

Phoenix Mountains Preservation Council
Libby Goff, Jeannie Swindle

Liberty Wildlife
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US Forest Service - Tonto National Forest
Brooke Duffy, Greg Schuster

White Tank Mountains Conservancy
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Wild Arizona
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2017 ROSS with input and expertise from:

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Arizona State Parks
Dawn Collins, Leigh Johnson (formerly)

Desert Botanical Garden
Kimberlie McCue, Stacie Beute

Desert Foothills Land Trust
Roger Willis

Maricopa Trail and Parks Foundation
Jan Hancock, Larry Snead

Maricopa County Parks and Recreation Department
RJ Cardin

McDowell Sonoran Conservancy
Dan Gruber

Sonoran Institute
Laurel Arndt, Ian Dowdy

Superstition Area Land Trust
Charlie Goff

Trust for Public Land
Jason Corzine

White Tank Mountains Conservancy
Les Meyers

GOAL 4: COORDINATE & ELEVATE

Build upon the CAZCA foundation to ensure and amplify regional open space collaboration, coordination, management, and conservation successes.

Background and Rationale

Conservation efforts in the Sonoran Desert have produced many notable successes. The passage of the Arizona Desert Wilderness Act in 1990 with bi-partisan support resulted in the protection of more than 1.1 million acres of natural spaces in our state. From the early 20th century through today, visionaries from across the region have led efforts to conserve and protect a compilation of urban and suburban parks and preserves that boast more than 200,000 acres – making it the largest set of urban protected areas in the nation.¹ Large and small, these actions and others have resulted in a rich heritage of stewardship, safeguarding not only these incredible landscapes, but also our region's identity, sense of place, and quality of life.

However, significant and nearly continuous population and infrastructure growth together with a range of other urban pressures challenge our ability to protect, connect, and sustain intact Sonoran Desert habitat and high-quality outdoor opportunities for recreation, social gathering, personal renewal, and connecting with nature. Infrastructure expansion has encroached upon and often isolated previously protected open space. Continued expansion is beginning to do the same to once remote protected areas and remaining intact desert habitats. Many spaces acquired for conservation are now, or will soon be, islands, threatening their long-term capacity for ecological sustainability and resilience. Ecological and wildlife connectivity, in particular, has been dramatically reduced.

In addition, many of our parks and preserves are facing a range of similar challenges including incursions of invasive species, misuse of resources, vandalism, littering, and other impacts. Some groups across the region are tackling these issues in their local areas and seeing notable success, but more often than not, the knowledge and experience gained in these local efforts are not shared across the region. This results in a myriad of agencies and organizations duplicating the same kinds of projects and programs, competing for limited resources to pursue the same kinds of objectives, without the benefit of knowing what has been learned by peers.

Moreover, nearly every city and town, tribal community, county and federal agency, conservation-based non-profit organization, land trust, and conservancy has its own plan, projects, policies, funding mechanisms, and priorities for open space management and conservation. Broadly, efforts tend to focus on very local or organizational issues or immediate opportunities with a limited understanding of regional context or impact.

There clearly is a vital need for a concerted regional effort to establish strategic open space conservation and connection priorities; take advantage of habitat protection and connection opportunities; fund these efforts; and address the challenges facing our open spaces to restore, maintain, and sustain Sonoran Desert ecosystems and high-quality outdoor experiences for present and future generations.



The objectives and actions outlined in pursuit of this goal build on the advances that CAZCA has made toward developing a regional, collective responsibility for the future of Central Arizona. Using the tools developed in Goal 1, we will advance high-priority conservation and connection actions within our area of focus. Within the region we will collectively act to protect and restore our treasured open space as discussed in Goal 2, and we will work together to ensure that all present and future residents have access to open space and the opportunity to understand its value as outlined in Goal 3.

This goal focuses on creating regional collaborative mechanisms to support the implementation of these regional objectives. These include data sharing, the development of a regional data/GIS repository, and regional conservation planning tools. Goal 4 actions also focus on supporting and sharing existing work and expertise on key regional challenges like invasive species and regional needs like restoration, to avoid unnecessary duplication of effort. Finally, and most importantly, this goal involves convening appropriate regional leadership to coalesce around regional conservation, connectivity, and sustainability priorities and develop tangible and sustained initiatives to achieve them.

Goal 4 Successes Highlights

Arizona State Parks and Trails

Released their new Statewide Comprehensive Outdoor Recreation Plan which will guide the distribution of the Land and Water Conservation Fund (LWCF), the Arizona State Parks and Trails Heritage Fund and the State Lake Improvement Fund (SLIF) in Arizona from 2023 through 2027.

Central Arizona Conservation Alliance

CAZCA is stable and serves as a potential model for other collaboratives.

CAZCA All Partner meeting attendance has increased, creating more opportunity for collaboration.

CAZCA has established five working groups: Sonoran Insiders, Desert Defenders, Sonoran Seed Collaborative, Urban Desertscape Enhancement, and a group focused on

diversity, equity, inclusion, and accessibility. These groups are decentralized, bring in new partners, and are co-led by partner organizations.

CAZCA is a good model for other collaboratives, the number of partner organizations is 100+ as of 2024, and CAZCA continuously engages new partners.

CAZCA partners have successfully advocated for conservation.

White Tank Mountains Collaborative

WTMC collaborative work with cities and developers

City, County, and State

Conservation policies are becoming more important at various levels of government.

Municipalities are encouraging conserving water and encouraging reduction of monoculture.



Objective 4.1

Continue to develop and foster a culture of collaboration through innovation, regular connection, and communication, both within and beyond the CAZCA partnership.

ACTION	DESCRIPTION
Action 4.1.1	Continue to convene and encourage cross-sector, cross-agency, cross-disciplinary conversations and linkages around ROSS goals and objectives, partner missions, programs, and projects in the Central Arizona region and beyond.
Action 4.1.2	Evolve CAZCA outreach, partnerships, committees, working groups, and structures to continue to address regional issues and opportunities.
Action 4.1.3	Identify areas of overlap between partner plans and ROSS goals. Create linkages, identifying partnership opportunities to leverage resources and maximize benefits.
Action 4.1.4	Formalize the coalition and identify opportunities to encourage shared responsibility, advancement of regional goals, and financial and in-kind stewardship.
Action 4.1.5	Identify gaps in conservation action in CAZCA's area of impact and convene partners to assess and evaluate action in those areas.
Action 4.1.6	Continue to grow CAZCA to support the collaboration and increase conservation impact around Central Arizona.

Objective 4.2

Develop and/or enhance outreach, tools, mechanisms, programs, and structures for sharing and collaboration.

ACTION	DESCRIPTION
Action 4.2.1	Identify gaps and prioritize needs for knowledge/data sharing and collaboration.
Action 4.2.2	Identify, evaluate, educate, train, and implement available tools, models, and best practices.
Action 4.2.3	Develop and maintain a digital collaboration space. Develop or adopt shared digital tools for collaboration, data-sharing, GIS, project management, calendaring, knowledge exchange, etc.
Action 4.2.4	Develop, continue, and expand workshops, educational events, and mentor opportunities.
Action 4.2.5	Offer a new partner packet with background on CAZCA, other information, and tools. Keep these items updated as CAZCA grows and evolves.

Objective 4.3

Plan and develop mechanisms for Regional Open Space Strategy implementation, especially in areas that are not currently being addressed by partner organizations.

ACTION	DESCRIPTION
Action 4.3.1	Broadly and continually conduct outreach and education related to the ROSS to a variety of groups including (but not limited to); governmental organizations, the research community, the business community, stakeholder groups, and the broader regional, national, and international conservation community, etc.
Action 4.3.2	Evolve CAZCA partnerships, committees, and structures to carry out ROSS implementation.
Action 4.3.3	Obtain commitments for specific actions by regional partners.
Action 4.3.4	Support aligned actions, as appropriate, that share common objectives.



CLOSING

The goals, objectives, and actions comprising the Regional Open Space Strategy set the course for sustaining the region's most valuable assets - the natural environment and open space. Central Arizona is ready to break with the historic distinctions between people and environment, economic and ecological health. The future that Arizona's citizens want requires an updated definition of prosperity, one that acknowledges a healthy, connected system of natural areas as central to the regions' quality of life and its vibrant economy.

Transforming this vision into reality will require an organizational structure, complete with leadership to nurture its development, and sustained funding for implementation. Advancing any of the articulated actions individually will significantly benefit the region, but if implemented in unison, with purpose and collaboration among agencies, community leaders, elected representatives, NGOs, and other stakeholders, will result in a durable prosperity and resiliency for this and future generations. Join us as we come together as a region to realize the goals set forth in the ROSS and begin to secure Central Arizona's vibrant future.



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THE REGIONAL OPEN SPACE STRATEGY SECTION

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Goal 2

1. Using data from Maricopa County Parks (<https://www.maricopacountyparks.net/about-us/administration/about-us/> accessed March 2018), each of the Maricopa Association of Governments member organizations (<http://www.azmag.gov/About-Us/Member-Agencies> accessed March 2018), and the US Geological Survey's Protected Areas Database of the United States, calculations indicate the Phoenix MSA has more urban open space than any other region in the United States.
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GOAL 4

1. Using data from Maricopa County Parks (<https://www.maricopacountyparks.net/about-us/administration/about-us/> accessed March 2018), each of the Maricopa Association of Governments member organizations (<http://www.azmag.gov/About-Us/Member-Agencies> accessed March 2018), and the US Geological Survey’s Protected Areas Database of the United States, calculations indicate the Phoenix MSA has more urban open space than any other region in the United States.

APPENDIX A

ROSS TABLES ORGANIZATION ACRONYMS

Arizona Association for Environmental Education	AAEE
Arizona Center for Nature Conservation, South Mountain	ACNC- SOMO
Arizona Department of Transportation	ADOT
Arizona Forward	AZF
Arizona Game and Fish Department	AGFD
Arizona State Parks	ASP
Arizona State University	ASU
Arizona-Sonora Desert Museum	ASDM
ASU- Design School	ASU-DS
ASU- School of Community Resources and Development	ASU-SCRD
ASU- School of Geographical Sciences and Urban Planning	ASU-SGSUP
ASU-Central Arizona-Phoenix Long-term Ecological Research	ASU-CAP LTER
Audubon Arizona	AudAZ
Be Outdoors Arizona	BOAZ
Boy Scouts Grand Canyon Council	BSGCC
Bureau of Land Management	BLM
Central Arizona Conservation Alliance	CAZCA
City of Buckeye Community Services Department	CoBCSD
City of Peoria Community Services Department	CoPCSD
City of Phoenix Parks and Recreation Department	CoPPRD
City of Tempe Parks and Recreation	CoTPR
Desert Botanical Garden	DBG
Desert Foothills Community Foundation, Desert Awareness Committee	DFCF-DAC
Desert Foothills Land Trust	DFLT
Girl Scouts Cactus Pine Council	GSCPC
Greater Phoenix Economic Council	GPEC
Liberty Wildlife	LW
Maricopa Association of Governments	MAG
Maricopa County Flood Control District	MCFCDD
Maricopa County Parks and Recreation Department	MCPRD
Maricopa Trail and Parks Foundation	MT+PF
McDowell Sonoran Conservancy	MSC
National Parks Service - Saguaro National Park	NPS- Saguaro
National Seed Strategy	NSS
National Invasive Species Council	NISC
Plant Conservation Alliance	PCA
Regional Open Space Strategy	ROSS
Society for Ecological Restoration- Southwest Chapter	SER-SW Chapter
Sonoran Institute	Sonoran Institute
Southwest Seed Partnership	SWSP
Southwest Vegetation Management Association	SWVMA
Superstition Area Land Trust	SALT
The Nature Conservancy	TNC
Trust for Public Land	TPL
U.S. Forest Service	USFS
U.S. Geological Survey	USGS
Western Ecological Research Center (U.S. Geological Survey)	WERC
White Tank Mountains Conservancy	WTMC

ADVISORY COUNCIL**Jason Barney**

Principal, Landmark & Circle G Development

Russell Benford, Ph. D.

NAU/Salt River Pima Maricopa, Gila River, Indian Communities

Kathy Carlat

Mayor, City of Peoria

Lattie Coor

Chairman and CEO, Center for Future of Arizona

Leslie Dornfeld

FAICP, PLANeT

Inger Erickson

Director, City of Phoenix Parks and Recreation

Ferran Garcia-Pichel, Ph.D.

Dean of Natural Sciences, Arizona State University

Dennis Holcomb

Flood Control District Maricopa County/NPS, retired

Dan Kimball

NPS/EPA, retired

Andy Kunasek

Maricopa County Board of Supervisors

Bill Murphy

Executive Director, Community Services, City of Scottsdale

Sandie Smith

Past President, Pinal Partnership

Ray Suazo

Arizona State Director, BLM

2017 OPEN SPACE SUMMIT STAKEHOLDERS

Fred Abraham	Gabby Hebert	Sarah Porter
Joshua Bednarek	Daniel Higgins	Ray Quay
Jessica Bland	Amanda James	Anne Reichman
Ryan Bleam	Jennifer Jenkin	Phil Richards
Chris Calcaterra	Andrew Joe	Deborah Salon
RJ Cardin	Melissa Johnson	Fred Sanchez
Cassandra Castellanos	Dale Larsen	Raymond Schell
Kaylee Colter	DiAnna Lipe	John Sefton
Paul Coseo	Cheryl Lombard	Dani Serna
Osha Davidson	Melissa McGehee	Alan Shelton
Carol Davis	Jeremiah McGehee	Ashley Slechta
Christine Dick	Robert McGehee	Jeff Spellman
Donald Domann	Claire Miller	Don Steuter
Jake Eason	Lorraine Montuori	Tice Supplee
Brianne Fisher	Oliver Ncube	Diana Suquetz
Megan Fisk	Mathew Nevarez	Chris Thomas
Carolyn Flower	Chris Nieto	Steve Trussell
Darren Gerard	Hannah Oliver	Bryan Wagner
Charlie Goff	Michael Park	Phil Weaver- Stoesz
C.J. Hager	Deb Patton	Roger Willis
Sharon Hall	Tabitha Perry	Christine Willis
Allyce Hargrove	Greg Peters	Robert Wisener



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