



Technical Leads

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GOAL 1: PROTECT & CONNECT

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

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. 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. 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. 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.

Recognizing that we cannot conserve everything, but that we need and/or desire to conserve some things, 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 in 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.

Develop a GIS-based data visualization and modelling tool, or "Greenprint," to support decision-makers in the identification of Maricopa County's most ecologically and culturally valuable resources for conservation.

ACTION	DESCRIPTION	SUGGESTED LEAD ORGANIZATION(S)	OTHER PARTICIPANTS	TARGET YEARS
1.1.1	Identify and engage natural infrastructure planning partners.	DBG, MSC, SI, MCPRD		*Done
1.1.2	Research models, case studies, and existing tools and services for visualizing and modelling for natural assets.	DBG, MSC, SI, MCPRD		*Done
1.1.3	Select lead partner(s) for technical services and tool development.	DBG, MSC, SI, MCPRD	TPL, TNC, AGFD	*Done
1.1.4	Identify initial priority asset types to be included and modelled.	Goal Team 1, Steering Committee, Advisory Council, and Planning Team, together with CAZCA partners		Ongoing
1.1.5	Bring data out of silos and compile across types/goals.	Goal Team 1 with selected technical services partner		Ongoing
1.1.6	Assign relative weights to asset types within and across goals.	Goal Team 1 with selected technical services partner		Ongoing
1.1.7	Develop the tool, technical analysis, and modelled outputs.	TPL, AGFD, DBG, TNC	Goal Team 1	*Done
1.1.8	Test the tool.	DBG, TPL, SI, AGFD, TNC, ASU	Select municipalities	Ongoing

^{*} Implementation began as the strategy was being developed

Identify and map natural infrastructure and open space conservation priorities. Develop a comprehensive regional open space vision inclusive of priorities spanning urban, suburban, rural, and wilderness areas.

ACTION	DESCRIPTION	SUGGESTED LEAD ORGANIZATION(S)	OTHER PARTICIPANTS	TARGET YEARS
1.2.1	Identify and convene stakeholders and a technical advisory team to determine priorities.	SI, DBG	Diverse open space decision makers, stakeholders, and users	*2017-2019
1.2.2	Establish prioritization criteria to Include considerations as: Ecological value Socio-cultural value Development pressures Gaps in protections Gaps in recreational opportunities Gaps in public access to nature Low hanging fruit Local and community priorities Potential for acquisition	SI, DBG, MSC, MCPRD, AGFD, TNC, TPL, ASU, AudAZ, Goal Team 1, and stakeholders convened in Action 1.2.1		*2017-2019
1.2.3	Analyze natural infrastructure assets against defined criterion to determine relative conservation value.	SI, DBG, MSC, MCPRD, AGFD, TNC, TPL, ASU, AudAZ, Goal Team 1, and stakeholders convened in Action 1.2.1		*2017-2019
1.2.4	Develop and publish open space visions with mapped priorities.	SI, DBG, MSC, MCPRD		*2017-2019

^{*} Implementation began as the strategy was being developed

Advocate for integration of natural infrastructure concepts, planning, and open space conservation priorities into decision-making.

ACTION	DESCRIPTION	SUGGESTED LEAD ORGANIZATION(S)	OTHER PARTICIPANTS	TARGET YEARS
1.3.1	Train planners, developers, engineers, and other practitioners and decision-makers in natural infrastructure concepts and use of the GIS-based Greenprint.	DBG	TPL, AGFD, SI, MSC, MCPRD, TNC, ASU, AudAZ, AAEE	2018-
1.3.2	Advocate for adoption and integration of the Greenprint by state and local governments and the Maricopa Association of Governments.	DBG	MSC, WTMC, SI, TNC, MCPRD, AudAZ, DFLT, SALT, and local, state, and federal agencies and departments	2018-
1.3.3	Advocate for integration of natural infrastructure planning concepts into university and continuing education curriculum for planners, engineers, urban designer, architects, develops and other applicable career fields.	DBG, SI, AAEE, TNC, ASU- School of Geographical Sciences and Urban Planning, ASU - Design School, ASU - School of Community Resources and Development		*2017-

^{*} Implementation began as the strategy was being developed

Continuously update and improve the Greenprint to meet the needs of decision-makers, support multi-benefit regional open space solutions, and advance regional priorities.

ACTION	DESCRIPTION	SUGGESTED LEAD ORGANIZATION(S)	OTHER PARTICIPANTS	TARGET YEARS
1.4.1	Determine process for Greenprint updates, improvements, and expansions.	DBG	TNC, TPL	2018-2019
1.4.2	Continue to service the Greenprint; retain resources for continued hosting and data updates.	DBG	TPL	Ongoing
1.4.3	Improve and expand the Greenprint aligned to regional priorities.	DBG	TNC, TPL, AGFD, MSC, CAZCA partners, and other stakeholders	Ongoing







