

# STRATEGIC PLAN DRAFT

## STRATEGIC PLAN OVERVIEW

### **Purpose**

The purpose of this Strategic Plan (“Plan”) is to outline a menu of ideas for specific actions, responsible parties, and realistic timelines that will begin to implement priority programs identified in the Cooperative Agreement for the Cienega Corridor (“Agreement”). See Appendix I: Cienega Corridor Cooperative Agreement.

Like the Agreement itself, the Plan is the result of collaboration, consensus, and a shared vision for the future of the Corridor. Although the Plan focuses on realistic programs and actions, it is also an idealistic document, and reflects the vision, values, and long-term goals of the Cienega Corridor Conservation Council. The Plan takes the partners one step closer to realizing the overall goal of protecting and enhancing the cultural and natural resources of the Cienega Corridor through actions that balance human needs and uses with healthy ecosystems. Actions are not intended to be prescriptive or regulatory.

Implementation strategies and specific tasks for priority program areas are presented in enough detail to be useful as a work plan, yet allow for sufficient flexibility to respond to changing conditions and opportunities. The success of the Plan will be measured by incremental, positive actions that nurture cooperation and partnerships and promote the area’s unique sense of place. These actions, several of them current and on-going, range from on-the-ground restoration to policies and regulations that guide development and promote more nature-friendly housing and landscape design.

### **Cienega Corridor Community Interest Area**

The Cienega Corridor is generally defined as the lower Cienega Creek watershed, including the area extending east of the Cienega Creek watershed’s western boundary and the Pantano Wash to the Cochise County line, and south from Saguaro National Park East and Coronado National Forest Rincon Wilderness to Las Cienegas National Conservation Area.

### **Background**

The Cienega Corridor planning process is an extension of efforts to protect the upper Cienega Creek watershed. In 1988, the Bureau of Land Management (BLM) engaged in a three-way swap with Anamax Mining Company and Pima County to create a 42,000-acre Empire-Cienega Resource Conservation Area. The Sonoita Valley Planning Partnership is a citizens’ group that formed to help advise the BLM on a resource management plan for the Empire-Cienega Resource Conservation Area. The Partnership also helped the BLM develop a vision for the future condition of the landscape, determining that a higher level of protection was needed than that afforded by the Resource Conservation Area.

The Sonoita Valley Planning Partnership and others proposed that a federal designation as a National Conservation Area (NCA) be sought for the land.<sup>1</sup> Because establishment of an NCA is a legislative process, local stakeholders felt strongly that this approach, if successful, would

---

<sup>1</sup> NCAs are federal conservation designations that safeguard nationally important resources and are a more flexible alternative to national parks, monuments, and wildlife refuges. Each NCA is created by Congress, which crafts legislation tailored to protect the area’s specific resources.

# STRATEGIC PLAN DRAFT

reflect broad community support. The proposed NCA was to include all 42,000 acres of the Empire-Cienega Resource Conservation Area as well as approximately 150,000 acres north of the Resource Conservation Area, creating a connected corridor to the Rincon Mountains. Ultimately, these 150,000 acres were not included in the NCA (which only incorporated the original Empire-Cienega Resource Conservation Area) and currently remain unprotected. This land includes most of the current Sonoita Valley Acquisition Planning District, as well as what was formerly known as the “Missing Link.” The entire area is now called the Cienega Corridor.

In 2000, the Department of the Interior contracted with the Sonoran Institute to take the lead role in developing an assessment of the natural and cultural values of the Cienega Corridor, including recommendations for protection of these resources. In cooperation with the BLM and Saguaro National Park, Sonoran Institute conducted a series of workshops and open houses, compiled an inventory of natural and cultural resources—including ecological linkages—in the study area, and solicited preferred management strategies from resource experts and the public. The final recommendation was to form an ad hoc council of agencies, citizens, and interest groups to develop protection strategies consistent with local values and perspectives, and modeled after the successful Sonoita Valley Planning Partnership. In response to this need, in 2003 the Sonoran Institute facilitated formation of the Cienega Corridor Conservation Council (“Council”).

## Values

The Cienega Corridor has significant natural and cultural resource values:<sup>2</sup>

1. The area is biologically and geologically significant:
  - The Cienega Corridor provides habitat for six federally endangered plant and animal species, and twelve species of special concern.
  - According to data gathered in field studies conducted by the Sky Island Alliance, the Cienega Corridor lands are important movement corridors for mountain mammals, especially black bears, mountain lions, coatimundis, and mule deer.
  - Resource specialists, including biologists working with Pima County on its Sonoran Desert Conservation Plan, place the land in the Cienega Corridor at the highest-level priority for protection because of the presence of important habitat for endangered and threatened species, as well as its value as a wildlife corridor.
  - The watershed, including Las Cienegas NCA, provides the City of Tucson with up to 20% of its groundwater recharge system, according to data from the Arizona Department of Water Resources (an average of 16,000 acre-feet per year, out of an estimated 50-60,000 acre-feet total).
  - The area contains some twenty-one distinct and rare soil types, as well as numerous unique and rare limestone caves such as Colossal, Arkenstone, and Carter Caves.

---

<sup>2</sup> Source: Sonoran Institute. 2003. Assessment of Protection Measures for Certain Lands North of the Sonoita Valley Acquisition Planning District in Pima County, Arizona. Sonoran Institute: Tucson, Arizona.

# STRATEGIC PLAN DRAFT

These caves are important because they provide habitat for the endangered lesser long-nosed bat and the sensitive Mexican long-tongued bat, as well as for several species of rare invertebrates.

2. The area is culturally and economically important:

- Numerous archaeological sites, representing approximately 10,000 years of use, and historical sites including stagecoach routes, overland mail routes, ghost towns, and long-time working ranches occur in the Cienega Corridor. The Corridor also contains areas of traditional and cultural significance to certain American Indian tribes.
- The open space in the Cienega Corridor provides multiple recreation opportunities for the rapidly growing Tucson population: hiking, birdwatching, biking, horseback riding, scenic drives, photography, hunting, camping, cave exploration, and picnicking.
- Meeting recreation needs within the Corridor will help alleviate overcrowding of current protected lands adjacent to city limits, such as Saguaro National Park.
- The regional identity of the Rincon Valley is strongly based on Western rural lifestyle values, which include ranching and love of wildlife, open space, and outdoor recreation.

## **Cienega Corridor Cooperative Agreement**

The signing of the Agreement in \_\_\_\_\_(date) was the culmination of over two years of meetings and collaboration by the Council and marked an important milestone in celebrating and protecting the values of the Cienega Corridor. The Agreement put in place a formal structure for cooperative actions among a variety of participants.

## **CIENEGA CORRIDOR CONSERVATION COUNCIL**

### **Vision**

The Council is an ad hoc association of property owners, conservationists, recreationists, educators, and federal, state, county, and local agencies and organizations who have come together because of their shared interests and stewardship responsibilities for the Cienega Corridor. Council participants recognize that “the whole is greater than the sum of its parts”—that no single entity or jurisdiction can speak for the land, manage its current assets, and plan for its future—and that collaboration will foster more creative and cost-effective conservation and resource management.

Council participants share an appreciation of the Corridor’s unique natural and cultural landscape, and a commitment to collaborative actions to ensure that future growth will be sensitive to this area’s sense of place, local values, and important natural and cultural resources. There is a critical need for collaboration in the Cienega Corridor because of the patchwork of land ownership and increasing pressure from urbanization and unplanned growth. Through its

# STRATEGIC PLAN DRAFT

meetings and cooperative actions, the Council has created a forum for discussion and sharing of resources. An essential ingredient to the success of this effort is full public participation in all aspects of the process.

Although the Council has articulated a shared mission, it does not as a group take a unified stance on issues, through letter-writing or other forms of formal endorsement or opposition. The diverse make-up of the Council prohibits it from taking a formal position on issues. If Council members wish to comment on certain issues they may write personal letters potentially mentioning participation in the Council. This will allow Council participants to convey their affiliation without compromising the positions of those who disagree or are unable to comment.

## **Participants**

The level of participation in the Council will vary, depending on the needs and capabilities of the partners to the Agreement, and their roles (whether as Associates or Full Participants) will be acknowledged on the Agreement signature sheet.

Associates agree to attend at least two Council meetings per year, share existing data and information and, as appropriate, work cooperatively on future research and data collection and public information and outreach.

Full Participants will take a more active role on the Council and will be major partners in meeting the objectives of the Agreement and working to implement major strategies. Generally, they will participate on the Steering Committee, work cooperatively to identify and apply for long-term funding to sustain and support Council activities, and participate in implementation of priority actions identified in the Strategic Plan. Full participants will take an active role in public information and education by raising awareness among the general public, stakeholders, and governmental officials of opportunities for conservation and sustainable development. For additional information about the responsibilities of Council participants, see Appendix I.

For federal, state, and local agency representatives on the Council, many of these actions are already part of their respective missions and responsibilities. The following parties individually acknowledge a special interest or agree to take the lead role in addressing program areas identified in the Cooperative Agreement and related Strategic Plan:

### *Arizona Game and Fish Department*

The Arizona Game and Fish Department (AGFD) has a special interest, and agrees to take an active role in wildlife and habitat management and protection; exotic and invasive species management and control; wildlife and outdoor-related recreation, including responsible OHV use; and public access issues within the Cienega Corridor Planning Area. The Arizona Game and Fish Commission and AGFD have management authority for the state's wildlife. The Department recognizes the importance of the Cienega Corridor Planning Area for wildlife, including game species such as mule deer, javelina, and Gambel's quail; and non-game species, including many federally endangered and state-listed Species of Special Concern. The Department also recognizes the importance of this area in terms of animal movement and is concerned with the potential isolation of wildlife populations as urbanization expands and fragments habitat. Additionally, the Department is interested in, and continues to address, issues

## STRATEGIC PLAN DRAFT

regarding access to public lands that may be or become impaired at the “wildland”-urban interface. Finally, the Department is active in addressing issues related to human-wildlife interactions and living safely and harmoniously with wildlife in an urban setting.

The Department’s mission is to conserve, enhance, and restore the state’s wildlife and habitats through aggressive protection and management programs, and to provide safe and enjoyable wildlife-related recreational experiences to the public. The Department recognizes that the stewardship of wildlife habitat is a responsibility shared with many partners. The Department encourages partnerships with land and water management agencies, property owners, lessees, and all levels of government to promote cooperative habitat management for the public good.

### *Arizona Trail Association*

[Need language]

### *Bureau of Land Management*

Recreation impacts; range conditions and projects; liaison to Sonoita Valley Planning Partnership planning process for Las Cienegas National Conservation Area...[Need language]

### *Mountain Bike Access*

[Need language]

### *Pima Association of Governments*

The Pima Association of Governments (PAG) is a non-profit organization created voluntarily by the local governments in Pima County to facilitate information sharing and to cooperatively solve regional problems. PAG also provides technical support to its individual member jurisdictions on request.

The goal of PAG’s Watershed Planning Program is to preserve or improve the water resources in the region’s watersheds. As part of this effort, PAG has conducted groundwater and surface-water monitoring at the Cienega Creek Natural Preserve for roughly fifteen years, at the request of Pima County. This experience, as well as a long history of providing a neutral forum for sharing information among different government entities, makes PAG an appropriate organization to play a key role in sharing information and conducting research and monitoring on the Cienega Corridor’s water resources.

### *Pima County*

There are several reasons why Pima County agrees to take a lead role in land use planning, habitat protection, recreation resources, and cultural resource preservation. The Cienega Corridor Planning Area currently lies entirely within unincorporated Pima County for which the County has responsibility for long range planning and zoning. Pima County owns and manages significant public lands within the Corridor, including Colossal Cave Mountain Park and the Cienega Creek Natural Preserve. Recent planning for the Pima County Comprehensive Plan, the Sonoran Desert Conservation Plan, and the Open Space Bond identified significant habitat areas, development policies, and conservation strategies for natural and cultural resources. Several Pima County departments are responsible for recreation, land use, environmental, and cultural resource planning and staff representatives are part of the Council planning process.

# STRATEGIC PLAN DRAFT

*Pima County Regional Flood Control District*

[Need language]

*Pima Trails Association*

[Need language]

*Rincon Institute*

[Need language] Site-specific restoration projects that address several program areas [habitat; invasive species; groundwater]; lead role in community outreach and educational materials/programs/volunteer program....

*Rincon Valley Coalition*

[Need language]

*Saguaro National Park*

Saguaro National Park has the responsibility to preserve and protect over 90,000 acres of Sonoran Desert and associated habitats and provide visitor understanding of this fragile ecosystem. Saguaro National Park is divided into two districts and as Tucson, Marana, and Pima County grow in population, the park is becoming ever more divided into islands of habitat for the many plants and animals that make their homes in the desert. The Cienega Corridor is vital in protecting a significant wildlife corridor that allows the desert and mountain dwellers to continue to exist since many of these species require open migration routes that cover large distances.

Saguaro National Park is particularly well suited to play a lead role in addressing the issues of urban/wildland interface, recreation impacts, and access to public lands, as they pertain to the Cienega Corridor. Saguaro National Park staff have been in the forefront of roadkill research, addressing the impacts of roadkill on animal populations that must cross these manmade corridors. Saguaro National Park has an active invasive species eradication program, a problem that is largely due to development along park borders. Saguaro is also extremely interested and has been engaged in the issue of recreation impacts on public lands as human populations expand in surrounding areas. Finally, the park is addressing the demands for open space in a variety of planning efforts including Trails Planning and determining appropriate recreational uses of national park lands.

*Sonoran Institute*

Facilitation, coordination, outreach[Need language]

*Sky Island Alliance*

Wildlife monitoring and data collection on connectivity and corridors[Need language]

*United States Fish and Wildlife Service*

The United States Fish and Wildlife Service (USFWS) works to protect endangered and threatened species, migratory birds, freshwater fish and wildlife habitats in Arizona. USFWS also works with many other private and public partners to preserve and protect living resources of the Arizona ecosystems. Participation in the Council will allow USFWS to work with various

# STRATEGIC PLAN DRAFT

partners for USFWS trust resources. The Cienega Corridor is important for several endangered species that reside in the area, or use it as a corridor. The Cienega Corridor is also important in a larger context, because it is one of the most important corridors identified by the Sonoran Desert Conservation Plan, and is next to Las Cienegas National Conservation Area, Coronado National Forest, and Saguaro National Park.

## *United States Forest Service*

The US Forest Service supports and agrees to participate in the collaborative planning efforts and cooperative actions that are proposed for the Cienega Corridor Plan. The area identified as the Cienega Corridor is bounded on the east by Coronado National Forest's 45,023 acre Whetstone Mountain Ecosystem Management Area, on the west by the 148,421 acre Santa Rita Ecosystem Management Area and on the north by the 265,142 acre Santa Catalina Ecosystem Management Area. Coronado National Forest ecosystem management areas are determined by the sky island nature of the topography which is characteristic of southeastern Arizona. In general, the mountainous areas of southeastern Arizona are managed by the Coronado National Forest while the flat and rolling topography that surrounds each mountain range is a mixture of land ownerships including state, county, Bureau of Land Management, National Park Service, and private.

Because of the isolated nature of these sky islands, the Forest Service realizes the importance of the lands in between the mountain ranges. These lands, in this case the Cienega Corridor, provide a multitude of benefits to the National Forest including: important wildlife habitat, corridors for wildlife movement, scenic vistas, and access routes. In addition, the existence of open space along Forest boundaries enhances the ability to manage fires to restore ecosystem functionality. The Cienega Corridor is in turn dependent on Coronado National Forest lands, which serve as the watershed that feeds into the grassland and desert areas and the aquifers below. By establishing the Cienega Corridor as a special management area, we can insure that the functionality and sustainability of these systems stay intact, along with the social values and economic vitality of the area.

## **PRIORITY PROGRAM AREAS AND IMPLEMENTATION STRATEGIES**

### **Program Areas**

Five priority program areas were identified as part of the process that led to the Cooperative Agreement. The five program areas are:

- Protection of habitat integrity and connectivity;
- Protection of groundwater quality and quantity;
- Support for sustainable recreation;
- Management of invasive species; and
- Protection of cultural resources and landscape integrity

### **Strategies**

Implementation strategies are recommended actions—or in some cases a series of interrelated actions—that address the five priority program areas. For all strategies, measures of success will track completion of the stated tasks according to the general time frame and responsible parties

# STRATEGIC PLAN DRAFT

noted. In addition, the level of public and Council participation will be included in the evaluation process.

## **Strategies Common to All Priority Programs**

Some implementation strategies are common to all priority programs. Others apply to one or two particular priority program areas. The following strategies, and supportive actions and tasks, address all priority programs:

### **A. Increase the Visibility and Effectiveness of the Council**

#### *Goal:*

As a relatively new organization that is committed to collaborative actions to guide conservation and development in the Cienega Corridor, it is very important that Council activities encourage diverse participation that represents and is supported by residents of the Corridor and other stakeholders. With a shared mission, a clear plan of action, and demonstrated “success stories”, the Council will be perceived as the key collaborative entity in the Corridor.

#### *Actions:*

1. Publicize Council and Steering Committee meetings (press and broadcast media contacts; newsletter and other publicity of Council participants).
2. Investigate the possibility of developing a citizen survey or questionnaire or other comment form for publication in a regional newspaper to solicit interest.
3. Pursue specific actions to encourage diverse participation (outreach to neighborhood associations; ranchers; other landowners).
4. Conduct a “town hall” or other large forum (annual open house/annual report) to attract a larger audience.
5. Conduct an annual celebration of community heritage and values (Cienega Corridor Pioneer Day).

#### *Measures of Success:*

Note the number of press releases and other publicity; number of meetings; expanded participation; visible role of Council with county, state, federal agencies, elected officials and other decision makers.

### **B. Share Data**

#### *Goal:*

The Cooperative Agreement and Strategic Plan are based on the belief that the sharing of information and research that reflect diverse perspectives and disciplines will contribute to a more comprehensive, holistic approach to programming, management, and citizen advocacy. Sharing knowledge and data will save time, money, and staff resources. The goal for data sharing includes information exchange on current research, existing conditions and programs, data on current level of compliance with laws and enforcement, and proposed programs and initiatives.

#### *Actions:*

1. Share information and data as appropriate and pertinent to the actions under consideration, including policies, regulations, and management practices.
2. Expand the Council’s existing website to include a database that contains data and information on priority programs collected by Council partners. Because this database will be publicly accessible through the web, agencies and individuals will not share sensitive data, such as specific locations of sensitive natural and cultural resources.



# STRATEGIC PLAN DRAFT

3. Work with partners to more effectively use existing technology such as Global Positioning Systems (GPS), remote sensing, and Geographical Information Systems (GIS) to collect, store, retrieve, analyze, and display information pertinent to the Cienega Corridor.
4. Work with partners to develop maps for specific project areas, and for use in public outreach.
5. Collect and share experiences and compile lessons learned about Corridor programs, management practices, etc., and incorporate into Strategic Plan updates.
6. Facilitate training for data management to ensure access to the database, especially by residents and landowners.

## *Measures of Success:*

Number of agencies or groups participating in database; number of individuals who gain experience with the database; utility of available information.

## **C. Expand the Funding Base**

### *Goal:*

The long-term viability of the Council and implementation of the Strategic Plan will require expanding the existing funding base and finding new cash and in-kind resources. These efforts will depend on demonstrating the success of the collaborative process, the energy and commitment of the Council partners, and initial (pilot) programs.

### *Actions:*

1. Encourage and support agency funding specifically targeted for Corridor programs.
2. Identify model programs (foundation/private support and public support) and match these with prospective sponsors and underwriters.
3. Identify ways to work with agencies to develop successful public/private grant opportunities.
4. Identify in-kind and volunteer sources.
5. Identify funding for acquisition or other protection strategies of priority areas, based on several criteria: e.g. Sonoran Desert Conservation Plan, Open Space Bond, at-risk landscape-level wildlife corridors, visual resources, recreational resources, and cultural landscape protection.
6. Provide training in grant writing.

### *Measure of Success:*

Amount of money raised or leveraged; number of participants who have increased grant writing capabilities; number of grants written; number of public/private partnerships supported.

## **D. Support Sensitive and Sustainable Development**

### *Goal:*

The work of the Council with regard to land development is two-fold: 1) to advocate for conservation through outright acquisition or purchase of development rights in areas with significant cultural and natural resources; and 2) to advocate for sensitive and sustainable development in areas identified as suitable for development. In both situations, what is considered “significant” or “suitable for development” will be guided by plans, policies, and ordinances of federal, state, and local governments. These include federal legislation such as the Endangered Species Act, and local land use and conservation plans such as the Pima County

# STRATEGIC PLAN DRAFT

Sonoran Desert Conservation Plan (SDCP) and the Comprehensive Plan. Consistent with the Council mission and the shared values of participants, the goal of the Council is to strike a balance between conservation and development in ways that will support the five priority programs.

## *Actions:*

1. Develop and implement acquisition and/or conservation strategies for priority areas based on several criteria: e.g. Sonoran Desert Conservation Plan, Open Space Bond, at-risk landscape-level wildlife corridors, visual resources, recreational resources, and cultural landscape protection.
2. Promote a range of mitigation techniques: better site planning (grading, preservation of vegetation and cultural resources), better building and landscape design (for preservation of views, for energy conservation/green building; for architectural details most appropriate to Sonoran desert, vernacular ranch styles; xeriscape and water harvesting); attention to types and location of fencing and connectivity of corridors between parcels (for wildlife movement).
3. Work with developers to identify “best practices” for environmentally sensitive development and incentives to promote quality, sensitive design practices.
4. Consider the use of best practices models and incentives in deed restrictions and homeowners association materials to promote wildlife-friendly habitat preservation, methods to prevent conflicts with wildlife (i.e. dog runs), “green” building, xeriscaping, water harvesting/ conservation, cultural resources protection, etc.
5. Investigate the feasibility of implementing planning and zoning tools including buffer and/or other overlay zones, scenic routes, and enhanced subdivision regulations.

## *Measures of Success:*

Number of developers or landowners who participate; mitigation techniques or development incentives applied; size and quality of land acquired or protected for conservation; number of development projects (and number of housing units) that benefited from best practices models and incentives.

## **E. Promote Education, Public Outreach, and Volunteerism**

### *Goal:*

Education about the mission of the Council and its priority programs is essential to maintaining the economic, social, and environmental health of the Corridor. Because the Council is an ad hoc partnership, its energy and long-term viability will depend on coordinating existing public outreach, tapping new participants, and mobilizing volunteers to support a variety of site-specific programs.

### *Actions:*

1. Develop and implement community outreach, educational materials/programs (including workshops and speakers bureaus), and volunteer projects relating to Cienega Corridor programs and issues such as wildlife-friendly habitat preservation, “green” building, xeriscaping, water harvesting/ conservation, cultural resources protection, well monitoring, habitat clean up and enhancement, erosion and sediment control, recharge, invasive species management, urban wildlife conflict prevention and management, urban-wildland interface (fire issues), and recreation.

# STRATEGIC PLAN DRAFT

2. Expand the Arizona Site Stewards program on county, state and federal lands.
3. Develop an outreach program for private landowners who may have archaeological, historical, and other cultural resources on their property.
4. Coordinate historic preservation and education-related functions among Council partners who are responsible for management of resources such as Colossal Cave Mountain Park, Saguaro National Park, Bureau of Land Management, US Forest Service and related agencies.
5. Involve the Vail School District and University of Arizona in a variety of education and outreach actions.

## *Measures of Success:*

Number of participating individuals and organizations; number of public participants.

## **F. Encourage Effective Monitoring and Enforcement of Existing Laws**

### *Goal:*

Before new laws or policies are adopted, there should be effective enforcement of existing laws. Collaborative action with regard to enforcement is the first step in protecting the Corridor's valuable habitat, recreation, and cultural resources. This is particularly important in the Corridor because of the fragility of riparian areas, upland grasslands, and desert vegetation, as well as the increase in illegal immigration and illegal or unauthorized ATV (all-terrain-vehicle) use and recreation demand.

### *Actions:*

1. Develop outreach materials and strategies (including website and "hotline" information) to increase reporting of illegal activities and their impacts in the Cienega Corridor.
2. Coordinate the enforcement of laws regarding ATV/off-road vehicle use.
3. Coordinate law enforcement among county, state, and federal land managers with specific emphasis on preventing looting, vandalism, and other crimes against cultural resources on the public lands.

### *Measures of Success:*

Increase in reporting and level of collaboration among residents and enforcement agencies.

## **G. Monitor Strategic Plan Success**

### *Goal:*

Since the Strategic Plan offers a menu of ideas and proposed incremental actions, its success will be measured by evaluating whether proposed actions have been taken in accordance with the action plan, and if these actions have had their intended results. With this in mind, we recognize that success is relative. The Strategic Plan is meant to be dynamic, subject to change, based on changing conditions in the Corridor and lessons learned. For example, the Plan is prepared in a loose leaf format because the "menu of ideas" is intended to be a work in progress. Yearly monitoring will help refine priority strategies and supportive actions to ensure that protection efforts are as effective as possible.

### *Actions:*

1. Establish the process or procedures for evaluating Council and Steering Committee progress on priority programs.
2. Monitor on a yearly basis, revise the Plan program and Action Plan (See Appendix III) based on the results of evaluation, and complete an annual report with full Council participation.

# STRATEGIC PLAN DRAFT

## *Measures of Success:*

Degree to which the evaluation informs and improves Strategic Plan annual updates.

## **Strategies to Protect Habitat Integrity and Connectivity**

### *Goal:*

Strategies that aim to protect habitat integrity and connectivity are supported by site-specific actions, such as monitoring and wash restoration, as well as more comprehensive and far reaching actions that will guide current development and future growth. Examples of the latter include site design and landscape guidelines that will mitigate development impacts on wildlife movement.

Please note: several actions listed earlier under “Support Sensitive and Sustainable Development” address habitat protection and mitigation and can be incorporated into this priority work program. Refer to “Support Sensitive and Sustainable Development” for a list of actions.

### *Other Actions:*

1. Conduct long-term wildlife monitoring and data collection on corridors to increase the knowledge base and promote conservation advocacy.
2. Coordinate the development of range improvement programs (grazing management actions) based on ranchers’ needs and/or ecological assessment.
3. Develop strategies to mitigate the effect to public lands of domestic livestock, pets, and/or the dumping of animals on lands adjacent to public lands.
4. Work with ADOT, Pima County, public lands managers, and others to develop strategies and construct roads that will reduce road kill, allow safe passage of wildlife, and minimize impacts to the surrounding landscape and resources.
5. Restore Rincon Creek and other significant washes.

### *Measures of Success:*

The number of species monitored; number of unauthorized or duplicative/unnecessary roads closed; number of volunteers assisting with restoration; number of ranchers, landowners, and development community representatives involved in the process; number of mitigation techniques or incentives applied; size and quality of land acquired or protected for conservation.

## **Strategies to Protect Groundwater Quality and Quantity**

### *Goal:*

Water is one of the most critical issues for the long-term health of the Cienega Corridor and for the Tucson Basin. Because the Arizona Department of Water Resources is responsible for water management in much of the Cienega Corridor (part of the Tucson Active Management Area), Council strategies focus on education and public awareness about water use and water quality. Like other Council strategies, actions are not intended to be prescriptive or regulatory.

### *Actions:*

1. Identify major sources of water pollution in the Corridor.
2. Mobilize and organize a public education series for residents regarding non-point source pollution and water harvesting and water recycling.
3. Coordinate monitoring of surface and groundwater for quality and quantity.
4. Identify landowners willing to investigate and implement measures to control sedimentation in the lower Cienega Creek watershed.

## STRATEGIC PLAN DRAFT

5. Identify landowners, volunteer groups, and individuals for monitoring and measuring of groundwater and precipitation.
6. Identify groundwater impacts from the railroad and road maintenance, both Interstate and County (e.g., herbicides, chemicals, leaching, rights of way, blading, sedimentation, erosion, hazardous materials).

### *Measures of Success:*

Number of residents involved in public education series; number of individuals and developers who use guidelines; number of organizations collaborating on and sharing water resources information; number of landowners involved in sedimentation, groundwater monitoring and precipitation studies; level of engagement of agencies and the Southern Pacific Railroad regarding impacts of maintenance to transportation corridors.

### **Support for Sustainable Recreation**

#### *Goal:*

Pima County has identified trails and recreation resources for the Cienega Corridor in the Comprehensive Plan and the Eastern Pima County Trails System Master Plan, as amended. Other land managers, including federal and state agencies and local landowners, have mapped trails and trail access. In addition, the Arizona Trail will traverse the Cienega Corridor. The goal of the Council is to ensure that these recreation policies, plans, and projects complement each other, enhance appropriate recreation opportunities for diverse user groups, and protect the natural and cultural resources of the Cienega Corridor.

#### *Actions:*

1. Inventory the range of recreation uses and users in the Cienega Corridor.
2. Update trail routes, trail access, and other recreation resource information and mapped data (master plan) for the area.
3. Share results of recreation research and research models currently underway within Saguaro National Park in partnership with the University of Arizona.
4. Identify priority natural and cultural resource areas, including caves, archaeological sites, and cultural landscape features to be considered for specific protection measures while planning for recreation.
5. Work with the Arizona Trail Association to complete the Arizona Trail segment through the Corridor.
6. Coordinate and support implementation of recreation policies and strategies to identify appropriate areas for passive and active uses and high-impact recreation; appropriate trail and road access to public lands; and responsible parties for development and maintenance of trails.
7. Draft shared-use agreements for trail easements.
8. Execute agreements with developers for trail easements through conditions of rezoning.

### *Measures of Success:*

Number of groups and individuals participating in coordinated recreation planning; number of agreements established regarding trail easements.

# STRATEGIC PLAN DRAFT

## **Strategies for Management of Invasive Species**

### *Goal:*

The Cienega Corridor is a complex ecosystem that is home to many important wetland species. Unfortunately, one devastating impact of human land use has been the introduction of non-native species. Many of these species have been imported from outside of this continent and do not find their natural predators in the ecosystem to keep their populations in check. Due to the absence of natural checks, and their aggressive nature, these species are able to displace our native southern Arizona flora and fauna. Our goal is to promote native biodiversity while controlling and diminishing the spread of invasive species.

### *Actions:*

1. Identify priority invasive species and priority areas for management.
2. Decide on control strategies for priority invasive species and management areas.
3. Develop and implement a monitoring protocol to determine the extent and/or re-emergence of targeted invasive species.

### *Measures of Success:*

Priority species and areas for management identified; control and monitoring protocols developed and implemented.

## **Strategies to Protect Cultural Resources and Landscape Integrity**

### *Goal:*

The Cienega Corridor is a landscape rich in cultural resources and archaeological artifacts that document various stages of our nation's history. Today, the landscape is marked by ranches, open spaces, and a rural character. With the population around the Town of Vail growing rapidly, the Council is committed to educating newcomers about the history and culture of the land. The Council's goal is to protect the cultural and historic artifacts, current and historic ranches, and western rural lifestyles of the Cienega Corridor.

Please note: several actions listed earlier under "Promote Education, Public Outreach, and Volunteerism" and "Strategies to Protect Habitat Integrity and Connectivity" address cultural resources and landscape integrity and can be incorporated into this priority work program. Refer to "Promote Education, Public Outreach, and Volunteerism" and "Strategies to Protect Habitat Integrity and Connectivity" for a list of actions.

### *Other Actions:*

1. Update County records for cave features, archaeological sites and survey data with Arizona State Museum data downloads.
2. Continue to work with the Cultural Landscape Foundation and others to celebrate and protect the Corridor's cultural landscape.
3. Identify and interpret suitable, publicly accessible historic and archaeological sites on county, state, and federal lands.
4. Conduct lectures and workshops for the public on heritage issues, cultural landscape, ranching, and the history and prehistory of the Cienega Corridor.
5. Integrate cultural resources preservation for the Cienega Corridor into the Santa Cruz River National Heritage Area plan.
6. Promote a variety of actions to preserve current and historic ranches, including the purchase of development rights (conservation easements).

## STRATEGIC PLAN DRAFT

7. Support and celebrate local small businesses, and develop design guidelines and incentives to encourage new local enterprises that maintain rural character.
8. Coordinate law enforcement among county, state, and federal land managers with specific emphasis on preventing looting, vandalism, and other crimes against cultural resources on public lands.

*Measures of Success:*

Number of people involved in outreach programs; number of groups and agencies coordinating cultural resource planning; number of attendees at annual Pioneer Day; publicity associated with cultural heritage of the area.

# **STRATEGIC PLAN DRAFT**

## **APPENDICES**

- APPENDIX I: CIENEGA CORRIDOR COOPERATIVE AGREEMENT
- APPENDIX II: SELECTED MAPS
- APPENDIX III: ACTION PLAN
- APPENDIX IV: ACRONYMS
- APPENDIX V: DESIGNATION OF CIENEGA CORRIDOR AS AN ENDANGERED CULTURAL LANDSCAPE (Cultural Landscape Foundation)



# STRATEGIC PLAN DRAFT

## APPENDIX III

### ACTION PLAN

#### Setting Priorities

From its inception, the Council has been involved with identifying strategies and setting program priorities. The Council has prioritized actions in the Action Plan through a two-part process. First, the Council ranked action items on a scale from 1 – 5 (low to high priority) over a period of several months, to ensure full input from participants. The Council agreed to consider the following criteria when ranking the actions:

- The degree to which the action aligns with individual, organizational, or agency mandate or mission
- Cost of the action and/or opportunities for partnering or leveraging funds
- Level of urgency, or level of threat to the resources that the action could mitigate
- If actions are sequenced or linked, they should be considered together
- Probability of success
- Consequences of no action
- Assessment of the value of the action

Rankings were averaged and all actions with an average rank of greater than or equal to 4 were considered “high priority.”

After assessing the rankings, the Council determined that there remained too many actions in the “high priority” category to address immediately. In addition, several actions that were not identified as “high priority” by the group could be addressed immediately because they are either existing projects sponsored by Council partners or they have a high potential for implementation because resources have already been allocated. For these reasons, the second part of the prioritization process included another set of criteria to identify phases for addressing actions.

Phase one (immediate action) will apply if:

- The action is ongoing or in the active planning stages
- The action is high priority and resources are available
- The action is low cost, and there is a high probability of success
- The action will help significantly toward self-promotion of the Council
- There is a crisis situation/immediate threat, and the action is consistent with the long-term mission of collaborative action among Council participants
- There is an immediate opportunity that makes an action particularly compelling

The Council also agreed that after applying these criteria, if there were too many action items in phase one to realistically address in the short-term, phase one items would be further refined during the first year of Strategic Plan implementation, based on meeting three or more of the above criteria. All other actions would be in phase two.

# **STRATEGIC PLAN DRAFT**

## **Resource Sharing**

The Strategic Plan is intended to provide a framework for allocating and sharing resources. Because of this, the Plan may function as a planning and management tool for participating agencies and organizations. In several cases, identified strategies will build upon existing programs and resources. Other strategies will require tapping new funding sources and the expertise and energy of new Council participants.

# STRATEGIC PLAN DRAFT

<b>PHASE ONE</b>			
<b>Action</b>	<b>Reasoning</b>	<b>Lead</b>	<b>Other participants</b>
Publicize Council and Steering Committee meetings.	Ongoing in Saguaro News and SE Side Connections	Rincon Institute, Sonoran Institute	
Pursue specific actions to encourage diverse participation.	Ongoing	Rincon Institute, Sonoran Institute	
Conduct a “town hall” or other large forum to attract a larger audience.	Ongoing	Rincon Institute, Sonoran Institute	
Conduct an annual celebration of community heritage and values.	Ongoing	Colossal Cave Mt Park, Rincon and Sonoran Inst	
Involve the Vail School District and the University of Arizona in a variety of education and outreach activities.	Ongoing	Rincon, Sonoran	
Collect and share experiences and compile lessons learned about Corridor programs, management practices, etc., and incorporate into Strategic Plan updates.	Low cost, high prob. of success	Steering Committee	
Encourage and support agency funding specifically targeted for Corridor programs.	Funding essential to sustainability	Each agency	
Identify model programs and match these with prospective sponsors and underwriters.	Funding essential to sustainability	Steering Committee	
Identify ways to work with agencies to develop successful	Funding	Steering	

## STRATEGIC PLAN DRAFT

public/private grant opportunities.	essential to sustainability	Committee	
Identify in-kind and volunteer sources.	Funding essential to sustainability	Steering Committee	
Develop and implement acquisition and/or conservation strategies for priority areas.	Ongoing	Pima Co., Sonoran and Rincon Institutes	SIA, scientists involved in SDCP, other agencies and groups
Promote a range of mitigation techniques: better site planning (grading, preservation of vegetation and cultural resources), better building and landscape design (for preservation of views, for energy conservation/green building; for architectural details most appropriate to Sonoran desert, vernacular ranch styles; xeriscape and water harvesting); attention to types and location of fencing (for wildlife movement).	High priority, identifying resources (outstanding grants)	Sonoran, Rincon, Pima Co.	Private landowners and developers, TPL, TNC, SEALT, AOLT, UA, THS, SIA, AGFD
Work with developers to identify “best practices” for environmentally sensitive development and incentives to promote quality, sensitive design practices.	High priority, identifying resources (outstanding grants)	Sonoran, Rincon, Pima Co.	Private landowners and developers, TPL, TNC, AGFD SEALT, AOLT, UA, THS, SIA
Consider the use of best practices models and incentives in deed restrictions and homeowners association materials to promote wildlife-friendly habitat preservation, methods to prevent conflicts with wildlife (i.e., dog runs), “green” building, xeriscaping, water harvesting/ conservation, cultural resources protection, etc.	High priority, identifying resources (outstanding grants)	Sonoran, Rincon, Pima Co.	Private landowners and developers, TPL, TNC, SEALT, AOLT, UA, THS, SIA
Develop and implement community outreach, educational materials/programs, and volunteer projects relating to Cienega Corridor programs and issues.	Ongoing	Rincon Institute	Private landowners/ developers, Pima Co., AGFD, THS, SIA, UA— Cooperative

## STRATEGIC PLAN DRAFT

			Extension, Natural Resources, Hydrology, PAG, TBG, TW, NRCS, TPL, TNC, SEALT, AOLT, SNP, CCMP
Develop outreach materials and strategies to increase reporting of illegal activities and their impacts in the Cienega Corridor.	Ongoing	Pima Co.	PAG, BLM, UA
Establish the process or procedures for evaluating Council and Steering Committee progress on priority programs.	Low cost, high prob. of success	Steering Committee	
Monitor on a yearly basis, revise the Plan program and phasing based on the results of evaluation and complete an annual report with full Council participation.	Low cost, high prob. of success	Steering Committee	
Conduct long-term wildlife monitoring and data collection on corridors to increase the knowledge base and promote conservation advocacy.	Ongoing	Sky Island Alliance	AGFD
Restore Rincon Creek and other significant washes.	Ongoing	Rincon Institute	Private landowners and developers, SNP
Work with the Arizona Trail Association to complete the Arizona Trail segment through the Corridor.	Ongoing	Arizona Trail Association	
Share information and data as appropriate and pertinent to the actions under consideration, including policies, regulations, and management practices.	High priority, low cost, high prob. of success	(Pima Co.)	Each participating group or individual
Work with partners to develop maps for specific project areas, and for use in public outreach.	Low cost, high prob. of success	Pima Association of Govts	Pima Co.
Identify funding for acquisition or other protection strategies of priority areas.	Funding essential to sustainability		Pima Co., SIA, TNC, other groups and agencies

## STRATEGIC PLAN DRAFT

Coordinate the enforcement of laws regarding ATV/off-road vehicle use.	High priority, low cost	AGFD	Pima Co.
Coordinate the development of range improvement programs (grazing management actions) based on ranchers' needs and/or ecological assessment.	Ongoing	(BLM)	NRCD, Pima Co., ASLD
Coordinate monitoring of surface and groundwater for quality and quantity.	High priority, low cost	Pima Assoc. of Govts	USGS Water Resources Division, UA Geology and Hydrology, Pima Co., RI, BLM, ADWR, TW, other agencies
Coordinate and support implementation of recreation policies and strategies to identify appropriate areas for passive and active uses and high-impact recreation; appropriate trail and road access to public lands; and responsible parties for development and maintenance of trails.	High priority, low medium and high cost depending on development or implementation stages	(Pima Co., agencies)	USFS, SNP, BLM, AGFD, recreation groups
Identify priority natural and cultural resource areas, including caves, archaeological sites, and cultural landscape features to be considered for specific protection measures while planning for recreation.	High priority, low cost	Pima Co., other agencies	SIA, UA, CCMP, AGFD, Southwestern Archaeology State Museum?, State Historic Preservation Office?
Work with ADOT, Pima County, public lands managers, and others [City of Tucson Department of Transportation?] to develop strategies and construct roads that will reduce road kill, allow safe passage of wildlife, and minimize impacts to the surrounding landscape and resources.	Ongoing	AGFD and other agencies	Pima Co., SIA, SNP, BLM, ADOT, SPR, FHA

## STRATEGIC PLAN DRAFT

<b>PHASE TWO</b>			
Expand the Arizona Site Stewards program on county, state and federal lands.	Not high priority	(Pima Co.)	SNP, USFS, BLM
Develop an outreach program for private landowners who may have archaeological, historical, and other cultural resources on their property.	Not high priority	(Pima Co.)	Private landowners, developers
Coordinate historic preservation and education-related functions among Council partners who are responsible for management of resources such as Colossal Cave Mountain Park, Saguaro National Park, Bureau of Land Management, US Forest Service and related agencies.	Not high priority	(Pima Co.)	SNP, USFS, BLM, CCMP
Coordinate law enforcement among county, state, and federal land managers with specific emphasis on preventing looting, vandalism, and other crimes against cultural resources on public lands.	Not high priority	(Pima Co.)	SNP, USFS, BLM
Develop strategies to mitigate the effect to public lands of domestic livestock, pets, and/or the dumping of animals on lands adjacent to public lands.	Not high priority		SNP, Pima Co., AGFD, USFS, BLM, USFWS
Identify major sources of water pollution in the Corridor.	Unsure if ongoing, or what the cost is	(Pima Assoc. of Govts)	
Identify landowners willing to investigate and implement measures to control sedimentation in the lower Cienega Creek watershed.	Not high priority		RI, private landowners, Pima Co., PAG, NRCS
Identify landowners, volunteer groups, and individuals for monitoring and measuring of groundwater and precipitation.	Not high priority		Private landowners, UA Hydrology
Identify groundwater impacts from the railroad and road maintenance, both Interstate and County (e.g., herbicides, chemicals, leaching, rights of way, blading, sedimentation, erosion, hazardous materials).	Not high priority		Pima Co., SPR, ADEQ, PAG, FHA, ADOT, UA College of Agriculture Department of Soil, Water, and Environmental

## STRATEGIC PLAN DRAFT

			Science
Inventory the range of recreation uses and users in the Cienega Corridor.	Not high priority		Pima Co., adjacent public land managers, RI, UA Natural Resources, Catalina Council/Boy Scouts, Huachuca Hiking Club, Southern Arizona Hiking Club, other recreation groups
Update trail routes, trail access, and other recreation resource information and mapped data (master plan) for the area.			Pima Co., adjacent public land managers
Share results of recreation research and research models currently underway within Saguaro National Park in partnership with the University of Arizona.	Not high priority		RI, SNP, UA
Draft shared-use agreements for trail easements.	Not high priority		Pima Co., private landowners and developers, PTA, public land managers, recreation groups
Execute agreements with developers for trail easements through conditions of rezoning.	Not high priority		Pima Co., landowners and developers
Update County records for cave features, archaeological sites and survey data with Arizona State Museum data downloads	Not high priority	Pima Co.	Pima Co., ASM
Identify and interpret suitable, publicly accessible historic and archaeological sites on county, state, and federal lands.	Not high priority		Pima Co., SNP, USFS, BLM
Conduct lectures and workshops for the public on heritage	Not high		Pima Co.



## STRATEGIC PLAN DRAFT

issues, cultural landscape, ranching, and the history and prehistory of the Cienega Corridor.	priority		
Integrate cultural resources preservation for the Cienega Corridor into the Santa Cruz River National Heritage Area plan	Not high priority		Pima Co.
Investigate the feasibility of implementing planning and zoning tools including buffer and/or other overlay zones, scenic routes, and enhanced subdivision regulations.	Not high priority, contentious		Pima Co., private landowners and developers
Identify priority invasive species and priority areas for management.	High priority, high cost		USFWS, PAG, other agencies, THS
Decide on control strategies for priority invasive species and management areas.	High priority, high cost		Pima Co., all agencies
Develop and implement a monitoring protocol to determine the extent and/or re-emergence of targeted invasive species.	High priority, high cost		Pima Co., all agencies
Investigate the possibility of developing a citizen survey or questionnaire or other comment form for publication in a regional newspaper to solicit interest.	Unsure as to cost, priority, and lead		
Expand the Council's existing website to include a database that contains data and information on priority programs collected by Council partners.	Unsure as to cost, priority, and lead		
Work with partners to more effectively use existing technology such as GPS, remote sensing, and GIS to collect, store, retrieve, analyze, and display information pertinent to the Cienega Corridor.	Unsure as to cost, priority, and lead		
Facilitate training for data management to ensure access to the database, especially by residents and landowners.	Unsure as to cost, priority, and lead		
Provide training in grant writing.	Unsure as to cost, priority, and lead		
Mobilize and organize a public education series for residents regarding non-point source pollution and water harvesting	Unsure as to cost, priority,		U of A Extension

## STRATEGIC PLAN DRAFT

and water recycling.	and lead		
Continue to work with the Cultural Landscape Foundation and others to celebrate and protect the Corridor's cultural landscape.	Unsure as to cost, priority, and lead		
Promote a variety of actions to preserve current and historic ranches, including the purchase of development rights (conservation easements).	Unsure as to cost, priority, and lead		
Support and celebrate local small businesses, and develop design guidelines and incentives to encourage new local enterprises that maintain rural character.	Unsure as to cost, priority, and lead		

# STRATEGIC PLAN DRAFT

## APPENDIX IV

### ACRONYMS

ADOT—Arizona Department of Transportation  
ADEQ—Arizona Department of Environmental Quality  
ADWR—Arizona Department of Water Resources  
ANPS—Arizona Native Plant Society  
AOLT—Arizona Open Land Trust  
ASLD—Arizona State Land Department  
ASM—Arizona State Museum  
ATV—All-terrain vehicle  
AGFD—Arizona Game and Fish Department  
BLM—Bureau of Land Management  
CCMP—Colossal Cave Mountain Park  
FHA—Federal Highway Administration  
NRCS—Natural Resources Conservation Service  
PAG—Pima Association of Governments  
PTA—Pima Trails Association  
RI—Rincon Institute  
SDCP—Sonoran Desert Conservation Plan  
SEALT—Southeast Arizona Land Trust  
SIA—Sky Island Alliance  
SNP—Saguaro National Park  
SPR—Southern Pacific Railroad  
TBG—Tucson Botanical Garden  
THS—Tucson Herpetological Society  
TNC—The Nature Conservancy  
TPL—Trust for Public Land  
TW—Tucson Water  
UA—University of Arizona  
USFS—United States Forest Service  
USFWS—United States Fish and Wildlife Service  
USGS—United States Geological Survey