Date: March 17, 2022

To: The Honorable Chair and Members
Pima County Board of Supervisors

From: Jan Lesher
Acting County Administrator

Re: Implementation of the Maeveen Marie Behan Conservation Lands System 2001 - 2021

In 1998, the Board of Supervisors launched the County on one of our most profound journeys when it adopted the Sonoran Desert Conservation Plan (SDCP). This plan, contrary to normal expectation, is not a physical document but rather a transformative mindset on conserving our cultural and natural resources and equally as important, enhancing the community’s economic health. Because of the SDCP, these are no longer mutually exclusive outcomes.

Over the nearly 25 years since its launch, much has been accomplished on many fronts to implement the vision of the SDCP as covered under the various documents available at this link. In addition to this information, I am pleased to transmit the attached 20-year retrospective on the Maeveen Marie Behan Conservation Lands System (CLS). First adopted by the Board in December 2001, it was one of the very first products to come out of the SDCP and is the expression of the SDCP’s Priority Biological Resources.

Conservation Land System Background

The CLS is science-based and was developed over multiple years with the assistance of more than 150 local and regional scientific experts. It maps and categorizes lands across Pima County according to their relative importance in maintaining an intact landscape, rich in biological diversity and describes the degree to which certain of these lands should be conserved. The CLS also provides guidelines for achieving the desired level of conservation.

When first adopted the CLS was codified as the state-required Environmental Element in the County’s 2000 Comprehensive Plan Update. The Board took subsequent actions to update the CLS with newly available science in 2005; renamed the CLS in posthumous recognition of the critical contributions that Dr. Maeveen Behan made to its development (2009); and re-adopt it as part of Pima Prospers – Pima County Comprehensive Plan Update (2015).

The CLS has been a guiding influence in many County undertakings including acquisition of open space properties and development of the Multi-Species Conservation Plan. It is used most frequently during the application of the County’s land-use authority, most specifically over those private development projects needing discretionary approval from the Board such as comprehensive plan amendments and rezoning requests.
CLS Implementation - The First 20 Years

January 2022 marks 20 years of applying the CLS to land use actions needing discretionary approval from the Board. The attached report, along with providing a detailed overview of the history and development of the CLS, analyzes the results of the Board’s application of CLS Conservation Guidelines to rezoning requests approved between January 2002 and December 2021. Findings reveal:

- The Board approved 316 rezoning requests;
- Only 57 rezoning requests were within the CLS;
- Application of the CLS Conservation Guidelines yielded over 3,200 acres of natural open space, nearly 2,400 acres of which were provided within the boundaries of the rezoned property;
- Natural open space provided at locations off-site from the development property is providing the same or better conservation values as those of the development property; and
- The Board has shown remarkable consistency in administering the CLS Conservation Guidelines, making adjustments when warranted to require conservation measures commensurate with the condition of on-site resources.

There has been a great deal of reliability and consistency over the last two decades in both the CLS policy itself (there have been no substantive changes since 2005) and in the Board’s implementation. This has allowed development to continue while preserving natural open space with equal or better conservation values than those of the site being developed. In many cases where natural open space is provided off-site, this has actually expanded County natural open space lands important to regional conservation.

Most notably, this analysis affirms that application of the CLS and its Conservation Guidelines are fulfilling the SDCP’s vision to achieve meaningful conservation while allowing for economic growth.

Attachment

c: Carmine DeBonis, Deputy County Administrator for Public Works
   Carla Blackwell, Director, Development Services
   Suzanne Shields, Director, Regional Flood Control District
   Linda Mayro, Director, Sustainability and Conservation
Maeveen Marie Behan
Conservation Lands System

Sonoran Desert Conservation Plan
Priority Biological Resources

The First 20 Years
2001 - 2021
The Maeveen Marie Behan Conservation Lands System (CLS) was developed as part of Pima County’s landmark Sonoran Desert Conservation Plan (SDCP), and was first adopted by the Board of Supervisors (Board) in December 2001 with implementation beginning in January 2002. The CLS is a key tool in the County’s toolbox to balance protection of our natural and cultural resources with fostering an economically vibrant community as envisioned by the SDCP. The CLS has two related components – a map and conservation guidelines.

The CLS Map visually displays categories of lands within Pima County based on their importance to maintaining an intact landscape, rich in biological diversity. Some lands such as urbanized areas have low value and are considered to be ‘outside the CLS’; these lands are better suited for development. The conservation guidelines (CLS Guidelines) define how much natural open space within each category needs to be retained across the landscape in order to preserve ecosystem functions and the diversity of the flora and fauna native to our region of the Sonoran Desert. Some categories also provide specific guidance on how individual development projects need to mitigate their impacts to lands within that category.

The County codified the CLS through the Comprehensive Plan. It was first adopted into the 2000 Comprehensive Plan Update as a means to fulfill the state’s requirement for an Environmental Element; was updated as a comprehensive plan amendment in 2005 incorporating newly available science; was renamed he Maeveen Marie Behan Conservation Lands System in 2009 by Board resolution (2009-281) to posthumously recognize Dr. Behan’s critical role in its development; and most recently, was re-adopted in 2015 as part of Pima Prosper – Pima County Comprehensive Plan Update.

As a land-use policy, the CLS most directly governs the development of private property subject to Pima County’s land-use authority. However, it has been and continues to be useful in other circumstances:

- It guides Pima County’s potential acquisitions of conservation lands including those targeted for open space bond programs and acceptance of donations and other property rights;
- It is used in the Multi-Species Conservation Plan Section 10 Permit to determine how many acres of mitigation are required to offset development impacts; and
- It provides a framework for mitigating impacts of state or federally authorized projects that cross County Conservation Lands.

January 2022 marks the 20th anniversary of CLS implementation and while there are many aspects worthy of closer examination, this retrospective report focuses exclusively on the CLS’s implementation as a land-use policy and its application to discretionary land use requests approved by the Board. It presents an overview of what the CLS is, how it was created, and its application as land-use policy; summarizes implementation data; and concludes with observations on patterns that emerged over the first 20 years. Project records and data logs from the Pima County Office of Sustainability and Conservation, Pima County Development Services Department, and the Regional Flood Control District (District) provided the primary sources of information for the analysis.
The Early Days - Developing the CLS

In December 1998, the Board officially launched the SDCP planning process and created several Technical Advisory Teams to guide the plan’s development. The Scientific Technical Advisory Team (STAT), a multi-agency, multi-disciplinary team, was tasked to use the best available science to design a reserve system that could protect the region’s biological diversity. The assignment also included specific direction to develop this reserve system relying only on biological and natural resource inputs and without consideration of jurisdictional boundaries or land ownership.

In execution of their task, STAT sought out assistance from over 150 scientists with local and regional expertise and relied on local land studies and habitat models for dozens of native at-risk species to identify and map the most biologically diverse lands across Pima County and rank them based on their relative biodiversity value. The endeavor also benefited from peer reviews by nationally-prominent experts in reserve design.

Ultimately, STAT produced a reserve system map that while showing jurisdictional boundaries solely emphasized the conservation of rare and regionally important species as well as landscape connectivity and integrity. This reserve design became the CLS Map (Map 1), which in its current iteration identifies seven categories of land:

- Important Riparian Areas (IRA)
- Biological Core Management Areas (BioCore)
- Special Species Management Areas (SSMA)
- Multiple-Use Management Areas (Multiple Use)
- Scientific Research Areas
- Agricultural In-holdings within the CLS
- Critical Landscape Connections
- Areas Outside of the CLS

STAT crafted landscape level goals for each of the CLS categories that in most cases declare how much of the entire category needed to be conserved as natural open space. Subsequent to its initial adoption, more detail was added about how impacts from development would be off-set through site design emphasizing development in the least sensitive areas and, for some categories, defined mitigation ratios for how many acres of natural open space need to be provided to compensate for each acre of development. Direction was also included that natural open space acres can be provided within the development property, off-site, or in combination.

The CLS Map and Guidelines were initially presented to the Board as part of Pima County’s Comprehensive Land Use Plan 2000 Update which was approved in December 2001. Implementation of the CLS as a land-use policy began in January 2002 with its application limited to only certain types of private development needing a discretionary approval from the Board. By design, CLS Guidelines are not applicable to entitled development (i.e., development not requiring a discretionary approval).
Map 1. Maeveen Marie Behan Conservation Lands System
Priority Biological Resources of the Sonoran Desert Conservation Plan.
The CLS has played a significant role in the County’s land-use planning and development decisions, and it has also influenced the efforts of other jurisdictions in the region. For example:

- In 2008, the Tucson City Council approved the creation of a policy to apply the CLS Map and Guidelines to all future annexations and directed staff to adopt the Guidelines into the city’s general plan update. (Mayor and Council Meeting Study Session, October 21, 2008.) The City of Tucson also references the CLS Map and Guidelines in its draft Habitat Conservation Plan (HCP), which was submitted to the U.S. Fish and Wildlife Service (USFWS) for review in 2014 and is still in a pending status. Their HCP is intended to be consistent with Pima County’s conservation efforts. (Draft City of Tucson Habitat Conservation Plan pp. 4-5.)

- In 2009, the Town of Marana completed a Public Draft HCP which relied in part on the habitat modeling data underlying the CLS; while the draft HCP was not completed, the town intends to use it to develop a comprehensive Open Space and Wildlife Conservation Plan “to guide natural resource conservation in the future.” (Make Marana 2040 – Town of Marana General Plan, December 19, 2019; p. 4-15.)

- In 2011, the Town of Oro Valley adopted its Environmentally Sensitive Lands Ordinance (ESLO) and its associated Resource Science Map, which is based in part on the CLS and its underlying data. The Resource Science Map identifies “known, biologically based, sensitive resources and associated conservation categories [that] are consistent with” the CLS. (Oro Valley Code Section 27.10.)

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**CLS as a County Land-Use Policy**

Even though the CLS Map encompasses more than three million acres within the geographic boundaries of Pima County (excluding the Tohono O’odham Nation and Pascua Yaqui Tribal Lands), its implementation is limited to unincorporated Pima County where development is subject to the County’s land-use authorities. As mentioned above, CLS Guidelines apply only to certain private development proposals needing discretionary approval from the Board to intensify existing land-use entitlements, namely:

- new rezoning and specific plan requests;
- time extension requests for rezoning cases;
- requests for substantial changes or waivers of rezoning or specific plan conditions, including substantial changes;
- requests for Comprehensive Plan amendments;
- Type II and Type III conditional use permit requests; and
- requests for waivers of subdivision platting requirement of a zoning plan.

These development proposals, if located within one of the mapped CLS categories, are subject to analysis under the Guidelines associated with that category, including site design criteria and obligations when applicable to provide natural open space mitigation for each acre to be developed. Table 1 summarizes the Guidelines for each category; see Attachment 1 for the complete, unabridged version.

Should any of the above-listed discretionary actions occur within the CLS, staff discusses CLS relevancy with project proponents during the application process. Staff reviews the applications, has iterative discussions with the project proponents and consults a variety of natural resource-based references prior to developing CLS compliance-related recommendations that are presented to the Board for consideration during the public hearing.

In all cases, however, the final determination of what will be required to satisfy CLS obligations is the sole purview of the Board. This authority is specifically called out in *Pima Prospers* (Ch. 3.4, Goal 1; Policy 10) which states the Board has the sole authority to modify or otherwise determine the appropriate amount of mitigation necessary to comply with the CLS.
<table>
<thead>
<tr>
<th>CLS Category</th>
<th>Landscape Conservation Goal</th>
<th>Site Design</th>
<th>Natural Open Space Acres for Each Developed Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Important Riparian Areas (IRA)</td>
<td>95%</td>
<td>Protect, restore, and enhance structure and functions</td>
<td>N/A</td>
</tr>
<tr>
<td>Biological Core Management Areas (BioCore)</td>
<td>80%</td>
<td>Configure development in the least sensitive part of the property; include on-site conservation values in any Natural Open Space (NOS) set-asides and preserve movement of resources across the landscape</td>
<td>4:1</td>
</tr>
<tr>
<td>Special Species Management Areas (SSMA)</td>
<td>80%</td>
<td>Configure development in the least sensitive part of the property; ensure any NOS set-asides to include on-site conservation values essential to Special Species and facilitate movement of Special Species across the landscape</td>
<td>4:1</td>
</tr>
<tr>
<td>Multiple Use Management Areas (Multiple Use)</td>
<td>66.66%</td>
<td>Configure development in the least sensitive part of the property; include on-site conservation values in any NOS set-asides and preserve movement of resources across the landscape</td>
<td>2:1</td>
</tr>
<tr>
<td>Scientific Research Areas</td>
<td>None</td>
<td>Continue management for scientific research; minimize any long-lasting impacts with potential to impact adjacent CLS lands</td>
<td>N/A</td>
</tr>
<tr>
<td>Agricultural In-holdings</td>
<td>None</td>
<td>Non-agriculture land uses to conserve on-site resources; facilitate movement of native species through the landscape and not compromise adjacent CLS lands</td>
<td>N/A</td>
</tr>
<tr>
<td>Critical Landscape Linkages</td>
<td>Protect existing linkages; remove obstacles to wildlife movement and restore fragmented landscapes</td>
<td>Remove obstacles to wildlife movement and restore fragmented landscapes</td>
<td>N/A</td>
</tr>
</tbody>
</table>
In 2005, the Board amended the CLS Guidelines for where natural open space set-asides could be provided. Natural open space can be set-aside within the boundaries of the development property (on-site), at a location other than the development property (off-site), or in a combination of on- and off-site. As mentioned above, in all instances, the Board determines the amount of natural open space that will be required to satisfy the CLS Guidelines. In circumstances involving off-site set-asides, as part of their discretionary approval, the Board typically dictates what portion of the natural open space acres will be provided on-site and off-site as well as mandates that the off-site natural open space be provided prior to final platting.

The Board allows natural open space to be set aside on-site or off-site to satisfy the CLS Guidelines.

In executing the Board’s directives regarding off-site natural open space, an administrative process is used to ensure the off-site natural open space provides conservation values commensurate with those of the property being developed and is consistent with criteria from Pima Prospers CLS Off-site Mitigation Policy (Ch. 3.4, Goal 1; Policy 11). These criteria state that off-site mitigation properties are to be located within the same general geographic region and provide the same or better resource values as the development property. The latter is determined by:

- CLS designations inclusive of 2004 Conservation Bond Habitat Protection Priority designations or subsequent conservation bond programs;
- Vegetation community type(s);
- Habitat values for applicable CLS Special Species (e.g., breeding, dispersal);
- Surface water or unique landforms such as rock outcrops;
- Contribution to landscape connectivity.

Regardless of whether the natural open space is provided on- or off-site, it is to be protected in perpetuity. To date, this has been accomplished through platting requirements, development restrictions, and deed restrictions that grant enforcement rights to the County.

Regional Flood Control District’s Incorporation of Important Riparian Areas into Chapter 16.30

Also in 2005, the District incorporated IRA protections into the Watercourse and Riparian Habitat Protection and Mitigation Requirements (Chapter 16.30) of the Pima County Code. IRAs were added as a category of regulated riparian areas and shown on the Riparian Classification Maps. Mitigation standards for unavoidable disturbance of more than 1/3 of an acre of IRAs were also codified. Like BioCore, SSMA, and Multiple Use, IRAs have a landscape conservation goal, but unlike these categories, CLS Guidelines for IRAs do not specify a project-level requirement for natural open space set asides. With the District’s addition of IRA-related mitigation requirements into Chapter 16.30, project-level IRA mitigation requirements now exist; these requirements are reliant on avoidance and mitigating impacts but nonetheless support the purpose and intent of the CLS.

It is important to note that Chapter 16.30 rules for project-level IRA mitigation are applied differently than when the Board applies CLS Guidelines to discretionary land use approvals. IRA mitigation via Chapter 16.30 is triggered at the permitting stage when the project needs a floodplain use permit, and it requires avoidance and replacement of individual riparian plants instead of a prescriptive amount of natural open space acreage. Projects that impact more than 5% of on-site IRAs are required to submit mitigation plans to the Board for administrative approval. Although this permitting decision is not discretionary, it serves to keep the Board informed about projects that are not in harmony with the CLS Guidelines 95% landscape conservation goal for IRAs.

Because Chapter 16.30 and the application of CLS Guidelines produce different types of mitigation that are not comparable (number of individual riparian plants vs. number of natural open space acres), the remainder of this report especially its analytical aspects only addresses conservation achieved through the Board’s application of CLS Guidelines and does not take into account IRA conservation achieved through the implementation of Title 16.30.
Examination of CLS natural open space, or that natural open space derived from discretionary land use cases within the CLS approved by the Board, relies on information collected between January 2002 and December 2021. The depth of this examination, however, is limited to rezoning cases only as they afforded the most useable data. Consequently, a total of 316 rezoning cases were examined, 57 (18%) of which fall within at least one CLS designation (Map 2). These 57 rezoning cases yielded a total of 3,283 acres of natural open space, the majority of which is provided within the boundaries of rezoned properties (Figure 1). Only 11 (19%) of the 57 cases generated off-site natural open space acres, with ten of these cases using a mix of on-site and off-site set-asides to meet their CLS obligations (Map 3).

As mentioned previously, a variety of means have been employed to satisfy the CLS Guidelines requirements to protect natural open space areas in perpetuity. On-site set-asides are subject to platting requirements or other development restrictions. Much of the acreage used to provide off-site natural open space (868 acres) has been donated to the County and is subject to deed restrictions. Where such properties are retained in private ownership, the County holds a conservation easement to protect the natural open space.

Although an examination of possible explanations is beyond the scope of this report, it is notable that a shift in the location of where CLS natural open space is being provided started to occur in 2015. Prior to that, with rare exception, CLS natural open space was provided entirely on-site. Since 2015, however, it is common for some natural open space to be provided on-site with the balance provided off-site.
Map 2. Rezoning Cases (57) approved within the CLS
January 2002 to December 2021
MAP 3. REZONING CASES (11) WITH OFF-SITE MITIGATION
Assessing Implementation Expectations

There is little debate that the CLS sets a lofty goal to balance development with conservation. Many in the community are optimistic and hold great expectations that the CLS will result in conservation commensurate with development impacts. Others are skeptical, believing that as a policy guideline it is ineffective and will result in irregular and inconsistent implementation. In order to gauge the veracity of these expectations, staff investigated two questions:

1. Does mitigation natural open space provide the same or better resource values than those lands in the CLS that are being developed?
2. Are there discernable patterns in the Board’s application of the CLS Guidelines?

**Question 1: Are resource values of mitigation natural open space equal to or better than those of lands being developed?**

**Answer:** Yes.

The analyses indicate that, yes, mitigation natural open space resource values are equal to or better than those of lands being developed.

For rezoning cases that use on-site set-asides to meet CLS obligations, this is not an issue as the natural open space is at the same location as the developed acres and therefore supports the same resource values. It is, however, more of a concern when off-site natural open space is used to satisfy CLS obligations. To assess whether off-site natural open space provides commensurate values, this report considered those 11 rezoning cases that used off-site natural open space to satisfy CLS obligations. Both the area of development as well as the off-site natural open space were compared against the following which represent the Pima Prospers CLS Off-site Mitigation Policy guideline criteria: CLS Categories, County Preserves, Wildlife Movement Corridors, and SDCP Planning Subareas.

Although the pursuant subsections discuss these criteria as discrete items, in practice they are considered collectively when assessing off-site natural open space’s acceptability as CLS mitigation. The ultimate objective is to accept off-site natural open space that, on the whole, advances CLS goals and objectives.

**CLS Categories**

STAT used many species- and vegetation-specific factors to design the CLS and therefore these categories are a good reflection of the Off-site Mitigation Policy’s direction to consider vegetation community types, habitats for CLS Special Species, and CLS Categories.

Furthermore, the CLS categorizes lands within Pima County according to their biological diversity value and essentially provides a de facto ranking of lands. IRAs, for example, are of the highest value and BioCore are less valuable than IRAs but more valuable than Multiple Use. Thus the CLS provides a framework to evaluate whether off-site natural open space offers lands at equal or better biologically valued land than those to be developed.

The results are that when filtered by CLS categories, all 11 cases provide off-site natural open space with the same or better conservation values than the lands to be developed (Map 3). Note that four cases provided off-site natural open space in Pinal County which necessitated interpretation to translate into CLS categories as the CLS Map does not transcend Pima County boundaries. Based on similarities in vegetation and topography, these off-site natural open space lands were found to support similar resources as Tortolita Mountain Park and therefore warranted the same CLS categories (IRA, BioCore, Multiple Use) as those occurring on the portion of the mountain park that lies within Pima County.
**COUNTY PRESERVES AND WILDLIFE MOVEMENT CORRIDORS**

The relationship of off-site natural open space to County open space properties (Preserves) and to wildlife movement corridors identified by the Arizona Game and Fish Department (AGFD) are effective measures of contributions to landscape connectivity.

In all 11 cases, the off-site mitigation lands created more value to landscape connectivity than that of the lands to be developed (Map 4). Seven cases resulted in the expansion of existing Preserves and four cases created new Preserves. These augmentations increase the size and number of County Preserves, which are important blocks of native wildlife habitat that contribute to regionally important AGFD wildlife movement corridors and greatly benefit regional landscape connectivity.

In comparison, the lands to be developed in these cases were at the time of their rezoning all largely surrounded by development and with three exceptions completely outside any AGFD wildlife movement corridor. In these three cases the lands to be developed may have some value in terms of local wildlife movement, but because of the surrounding development their value in terms of regional landscape connectivity is limited.

**SDCP PLANNING SUBAREAS**

The boundaries of these subareas were predicated on watershed boundaries and similarity of resources. They were fundamental to the organization and execution of many background reports underlying the SDCP and are used here to indicate whether off-site natural open space and developed lands are in the same general geographic region.

Like CLS categories, the SDCP Planning Subareas do not extend into Pinal County where some off-site natural open space is located. However, these Pinal County lands are within the same watershed and encompass similar resources as those within the Tortolita Fan Subarea, so for the purposes of assessing whether the off-site natural open space provides commensurate values as the property to be developed, the Tortolita Fan Subarea was extended to include these Pinal County lands.

Of the 11 cases, eight (73%) provide off-site mitigation within the same subarea as the land to be developed (Map 4). Of the remaining three cases (27%), only one provided all the required off-site mitigation in a different subarea; the other two provided a minimum of 65% of the required off-site mitigation in the same subarea as the land to be developed.

Question 2: Are there discernable patterns in the Board’s application of CLS Guidelines?

Answer: Yes.

There are, in fact, observable patterns in the Board’s application. As evidenced below, the Board has been remarkably consistent in applying the CLS Guidelines. Even in those infrequent instances where guidelines were altered, there are common on-site circumstances that seemingly motivated the changes.

The best means to reveal patterns in application of the CLS Guidelines is to compare what the Board actually required for CLS compliance against what would have resulted if the Board applied the CLS Guidelines as stated in the policy. This approach provides a replicable, quantifiable process to measure whether the CLS Guidelines were applied as stated, waived, or modified.

In practice, however, this comparison is necessarily limited to those rezoning cases that triggered CLS Guidelines for BioCore, Multiple Use, and SSMA as these are the only categories that have project-level mitigation ratios that define how many acres of natural open space are to be provided for each developed acre (Table 1). Consequently, this comparison is limited.
MAP 4. REZONING CASES (11) WITH OFF-SITE MITIGATION SHOWING PRESERVES, WILDLIFE LINKAGES, AND SDCP PLANNING SUBAREAS
to 47 rezoning cases out of the 57 that fell within the CLS. The other 10 cases interfaced only with IRAs and are excluded here because CLS Guidelines do not have project-level mitigation ratios for IRAs.

Results of this comparison are shown in Figure 2. Note that in the overwhelming majority of cases (70%) the Board imposed project-level mitigation ratios for natural open space as stated in the CLS Guidelines. The Board waived the need to provide CLS natural open space for six cases (13%) and modified the amount of natural open space required in eight cases (17%). Additional insights were gained by reviewing the 14 individual rezoning case files where CLS Guidelines were either waived or modified.

**Guidelines Waived**

All six cases where the need to provide CLS natural open space acreage was waived occurred on previously developed property. Information presented to the Board also reveals that none of these properties made a meaningful contribution to landscape connectivity and all were devoid of on-site conservation values. Three of these cases were located in the town of Ajo on properties that when combined, totaled less than one acre. The remaining three were on already-developed properties along major roadways and were only partially within the CLS (20% of the property or less).

**Guidelines Modified**

Of the eight cases where the amount of natural open space acreage required to comply with the CLS was modified, all included disturbed areas that no longer supported valuable on-site natural habitat. The nature of these modifications generally fell into two groups.

**Minor Modifications**

Minor modifications to the CLS project-level mitigation ratios were made in four cases. Review of information presented to the Board indicates that all were located on properties that supported native habitats and contributed to landscape connectivity but also contained areas degraded by historical ground disturbances. The Board imposed on-site natural open space set-aside requirements to protect native habitats that existed on the properties and to maintain landscape connectivity values. Ultimately, each of these cases provided no less than 85 percent of the natural open space acres that would have resulted if the CLS Guidelines had been applied as stated.

**Modifications with Supplemental Conservation Measures**

In the remaining four cases, the Board reduced the CLS project-level mitigation ratios but also required supplemental conservation measures. Review of information presented to the Board shows all these cases occurred on properties where native habitats had been significantly degraded, if not removed, due to historical ground disturbances. In all cases, the Board required natural open space set-asides to protect the areas of existing native habitats and imposed additional conservation enhancements intended to improve habitat conditions. These enhancements included environmental fees and re-vegetation requirements. It is noteworthy that two of these cases were located in areas important to landscape connectivity and that the Board mandated on-site set-aside areas to be specifically configured to preserve that connectivity.

The amount of natural open space the Board required varied in each of these four cases but was less than what would have resulted if the CLS Guidelines had been applied as stated. The range fell between as little as 14 percent and up to 47 percent of the natural open space that would have resulted if the CLS Guidelines had been applied as stated.
The CLS was first implemented in January 2002 and is the product of a rigorous, scientifically-based and collaborative process. It is part of the County’s landmark Sonoran Desert Conservation Plan that strives to balance natural and cultural resource protection while fostering an economically vibrant community and is key to the County’s efforts to preserve the rich biodiversity of this region.

The CLS includes two components: a map and a set of conservation guidelines. The map shows categories of lands that reflect their importance to biological diversity and contribution to regional landscape connectivity. The guidelines define, by category, what is necessary to preserve ecosystem functions fundamental to the survival of flora and fauna native to our region of the Sonoran Desert.

Between January 2002 and December 2021, the Board of Supervisors approved 316 rezoning cases, of which only 57 (18%) were within the CLS. In total, CLS mitigation for these 57 cases resulted in nearly 3,300 acres of natural open space with approximately 2,400 acres (73%) of natural open space located within the same property that was to be developed while only about 890 acres (27%) was provided at locations off-site from the developed property. The overwhelming majority of the off-site natural open space (868 acres) has been donated to the County and is being managed as part of the County’s Conservation Land portfolio.

Based on the analysis herein, natural open space provided as CLS mitigation is providing resource values equal to or better than those of the properties to be developed. Natural open space set-aside within the same property that is to be developed meets this expectation given it is in the same location. Comparison of the property to be developed and the off-site natural open space against key indices representing resource values shows that the off-site natural open space also meets this expectation. To date, off-site natural open space:

- occurs within the same or more highly ranked CLS Category than the developed property;
- has increased the size and number of County Preserves which are significant contributors to regional landscape connectivity; and
- with few exceptions, lie within the same general geographic region as the developed property.

Most notably, the Board has shown remarkable consistency in applying the CLS Guidelines. The full weight of CLS natural open space requirements were applied when and where conservation resources occurred. This accounted for 70% (33) of the rezoning cases that were subject to the Guidelines. Where CLS natural open space requirements were altered, the Board repeatedly exercised a right-sized approach to protecting on-site important conservation values that persisted in spite of previous land-use actions. This accounted for 30% (14) of the rezoning cases that were subject to the CLS Guidelines.

On the whole, the evidence shows that using the CLS as a guideline to govern decisions about discretionary land use actions has been effective. The Board has the flexibility to require mitigation commensurate with resources that are being impacted and there has been a profound degree of reliability, both in the Board’s application of the Guidelines and in the constancy of the Guidelines as policy (there have been no substantive changes or modifications since 2005). It bears pointing out that reliability is highly desirable among both the environmental and regulated development communities.

The CLS Guidelines are also producing mitigation lands that are of equal or better conservation value than those being developed and the use of off-site mitigation has added to County natural open space lands important to regional conservation.

Most importantly, the CLS, as applied over the last 20 years, fulfills the SDCP’s vision of achieving meaningful conservation while allowing for economic development. Staying the course for the next 20 years can be expected to accomplish nothing less.
ATTACHMENT. Excerpts from *Pima Prospers* Ch. 3.4
ENVIRONMENTAL ELEMENT – MAEVEEN MARIE BEHAN
CONSERVATION LANDS SYSTEM
The Pima County Board of Supervisors adopted Pima Prospers on May 19, 2015. This document is intended to provide an easily accessible overview and navigation aide to those sections within Pima Prospers that relate to the Maeveen Marie Behan Conservation Lands System.

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Background: Excerpts from Chapter 3 - Use of Land Distribution, Analysis, & Current Conditions

3.4 Environmental – Maeveen Marie Behan Conservation Lands System

The Maeveen Marie Behan Conservation Lands System (CLS) was adopted as part of the Environmental Element of the Pima County Comprehensive Plan 2001 Update in December 2001 and was updated June 21, 2005. In 2009, it was renamed as the Maeveen Marie Behan Conservation Lands System to commemorate Dr. Behan’s extra-ordinary contribution in bringing the CLS to fruition.

The CLS identifies and maps those areas where priority biological resources occur within Pima County. It also establishes policy guidelines for the conservation of these resources; guidelines are to be applied to certain types of land use changes that require approval by the Board of Supervisors. Other elements include definitions of seven priority biological resource categories, conservation guidelines, implementation strategies, and a map.

The Board has applied the CLS to well over 80 requests for land use changes since 2002. The Board and County Administrator’s Office also negotiate with mining corporations and others not regulated by the County but doing business here to mitigate voluntarily for their project-related impacts to lands and resources within the CLS. A tribute to the soundness of the CLS is that the policy has been in place for 13 years with only one update to allow for the incorporation of new scientific information. The CLS was constructed according to the most current tenets of conservation biology and biological reserve design. The CLS:

- perpetuates the comprehensive conservation of vulnerable species;
- retains those areas that contain large populations of focal vulnerable species;
- provides for the adjacency and proximity of habitat blocks;
- preserves the contiguity of habitat at the landscape level; and
- retains the connectivity of reserves with functional corridors.

The collective application of these individual tenets produces a CLS that retains the diverse representation of physical and environmental conditions, preserves an intact functional ecosystem, minimizes the expansion of exotic or invasive species, maximizes the extent of roadless areas, and minimizes fragmentation. Implementation of the CLS not only conserves those biological resources that exist today but, because of its landscape focus, preserves the future ebb and flow of resources essential
to a healthy functioning ecosystem. The seven CLS conservation land categories reflect relative values of biodiversity for various lands across the landscape.

Adherence to Conservation Lands System Guidelines will accomplish the following:

- Protect against the loss of conservation values and landscape integrity through in-place preservation and restoration or enhancement of degraded or otherwise compromised natural resources.

- Create development that retains conservation values at both the micro and macro landscape scale by minimizing impacts to site-specific sensitive conservation values, maximizing landscape continuity, facilitating the movement of native fauna and pollination of native flora across and through the landscape, promoting the long-term diversity of native flora and fauna, and preserving the viability of the CLS.

Based on the science of the SDCP with participation and oversight by the SDCP Science Technical Advisory Team (STAT), seven CLS conservation land categories (CLS categories) were created, defined, and mapped. Each category has an associated conservation guideline policy (conservation guidelines can be found in Chapter 3 – Land Use Policies; {See Plan Policy Chapter 3 excerpts herein}). The seven categories are: (See Glossary for definitions {or Glossary Excerpts herein}).

**Important Riparian Areas** are critical elements of the Sonoran Desert where biological diversity is at its highest. These areas are valued for their higher water availability, vegetation density, and biological productivity. They are also the backbone to preserving landscape connectivity.

**Biological Core Management Areas** have high biological values. They support large populations of vulnerable species, connect large blocks of contiguous habitat and biological reserves, and support high value potential habitat for five or more priority vulnerable species.

**Special Species Management Areas** are crucial to the conservation of three species of special concern to Pima County: the cactus ferruginous pygmy-owl, Mexican spotted owl, and southwest willow flycatcher.

**Multiple Use Management Areas** support significant biological values, but these values do not attain the level associated with Biological Core Management Areas. They support populations of vulnerable species, connect large blocks of contiguous habitat and biological reserves, and support high value potential habitat for three or more priority vulnerable species.

**Scientific Research Areas** are lands within the Tucson Basin that are managed for scientific research: the Santa Rita Experimental Range and the University of Arizona’s Desert Laboratory at Tumamoc Hill.
**Agricultural In-Holdings within the CLS** are areas where active, or abandoned, agriculture lands exist within the Conservation Lands System.

**Critical Landscape Connections** are six broadly-defined areas where biological connectivity is significantly compromised, but where opportunity to preserve or otherwise improve the movement of wildlife between major conservation areas and/or mountain ranges still persists. Roads, other infrastructure services, and residential and commercial land uses within these areas, depending on configuration, can result in habitat loss and fragmentation that inhibits the movement of native fauna and interrupt the pollination processes of native flora. These six areas generally focus attention on maintaining connectivity with the Santa Cruz River in northwest Tucson and southern Pima County, between the Catalina and Tortolita Mountains, between the Tohono O’odham Nation and Tucson Mountains, along the Cienega Creek corridor, and through Avra Valley.

As the CLS created a new paradigm for development of privately-owned property in unincorporated Pima County, a great deal of initial effort was devoted to developing and implementing procedures and requirements that promote implementation of the CLS. Significant accomplishments include:

- Modification of Site Analysis inventory requirements for rezoning applications to better identify the presence of conservation values and identify areas most suitable for development;
- Modification of comprehensive plan amendment submittal requirements to include information on conservation values;
- Modification of Biological Impact Report requirements for rezoning and conditional use permit applications to standardize information necessary to assess potential impacts to conservation resources and the integrity of the CLS;
- Standardized the review process for comprehensive plan amendment and rezoning applications to determine the application’s conformance with CLS, consistency with existing or logical expansion of infrastructure, and long-term conservation of highly valued natural resources; and
- Promulgated a new zoning ordinance to allow for the transfer of development rights.

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**Pima Prospers: Excerpts from Chapter 3 – Use of Land**

**3.4 – Environmental Element**

The Environmental Planning Element calls for analysis, policies and strategies to address anticipated effects of implementation of plan elements on natural resources. Policies and strategies under this plan element are designed to have countywide applicability. Conservation actions are to be encouraged, and protection of biological resources is considered an essential component of land-use planning. The Maeveen Marie Behan Conservation Lands System (CLS) is designed to protect biodiversity and provide land use guidelines consistent with the conservation goal of the Sonoran Desert Conservation Plan (SDCP). The CLS identifies areas important to the conservation of our natural resources heritage and
embodies the biological goal of the SDCP which is to “ensure the long-term survival of the full spectrum of plants and animals that are indigenous to Pima County through maintaining or improving the habitat conditions and ecosystem functions necessary for their survival.”

**Goal 1: Conserve and protect natural resources**

*Policy 1:* CLS category designations and CLS conservation guidelines apply to land uses and activities undertaken by or under the jurisdiction of Pima County or Pima County Regional Flood Control District (Flood Control District) as follows:

a. Pima County and the Flood Control District will seek consistency with the CLS through federal and state land-use decision plans and processes;

b. Application of CLS designations or guidelines shall not alter, modify, decrease or limit existing and legal land uses, zoning, permitted activities, or management of lands;

c. When applied to development of land subject to county or Flood Control District authority, CLS designations and guidelines will be applied to:
   
   1. New rezoning and specific plan requests;
   
   2. Time extension requests for rezoning cases;
   
   3. Requests for substantial change modifications or waivers of rezoning or specific plan conditions, including substantial changes;
   
   4. Requests for Comprehensive Plan amendments;
   
   5. Type II and Type III conditional use permit requests; and
   
   6. Requests for waivers of subdivision platting requirement of a zoning plan.

d. Implementation of these policies shall achieve the level of conservation necessary to protect a site’s conservation values, preserve landscape integrity, and provide for the movement of native fauna and pollination of native flora across and through the landscape; and

e. Projects subject to these designations and guidelines will be evaluated against the Conservation Guidelines for the CLS categories provided in conservation guideline policies, where applicable, to determine their appropriateness.

**Conservation Guidelines**

*Policy 2:* The Conservation Guidelines for the associated CLS designation apply to the total acreage of the site that lies within the boundaries of that designation:

a. If a CLS designation applies to a portion of a site, Conservation Guidelines for that designation will apply only to that portion of the site affected by that category;
b. For purposes of this policy, site is defined as a single lot or combination of contiguous lots; and

c. Where more than one CLS categories overlap, the more protective Conservation Guideline will apply to the affected portion.

**Policy 3:** The following Conservation Guidelines apply to Important Riparian Areas (IRA):

a. Across the entirety of the CLS landscape, at least 95 percent of the total acreage of lands within this designation shall be conserved in a natural or undisturbed condition;

b. Every effort should be made to protect, restore and enhance the structure and functions of IRA, including their hydrological, geomorphological and biological functions;

c. Areas within an IRA that have been previously degraded or otherwise compromised may be restored and/or enhanced; and

d. Such restored and/or enhanced areas may contribute to achieving the 95 percent conservation guideline for IRA;

e. Restoration and/or enhancement of degraded IRA may become a condition or requirement of approval of a comprehensive plan amendment and/or rezoning; and

f. On-site mitigation is preferable, however mitigation may be provided on-site, off-site, or in combination.

**Policy 4:** The following CLS Conservation Guidelines apply to Biological Core Management Areas:

a. Across the entirety of the CLS landscape, at least 80 percent of the total acreage of lands within this designation shall be conserved as undisturbed natural open space;

b. Land use and management focus on the preservation, restoration, and enhancement of native biological communities including but not limited to preserving the movement of native fauna and flora across and through the landscape and promoting landscape integrity; and

c. Projects subject to this policy and within this designation will yield four conserved acres (mitigation) for each acre to be developed:

1. Mitigation acres may be provided on-site, off-site, or in combination;

2. The preference is for the mitigation acres to be within Biological Core Management Area or Habitat Protection Priority Areas;

3. For purposes of this policy, Habitat Protection Priority Areas are those areas referenced and mapped as part of the 2004 Conservation Bond Program or subsequent conservation bond programs;
4. The 4:1 mitigation ratio will be calculated according to the extent of impacts to the total surface area of that portion of any parcel designated as Biological Core Management Areas;

5. Development shall be configured in the least sensitive portion(s) of the property;

6. On-site mitigation area(s) of undisturbed natural open space will be configured to maximize conservation values and preserve the movement of native fauna and pollination of native flora across and through the landscape; and

7. A Transfer of Development Rights (TDR) may be used in order to secure mitigation lands.

Policy 5: The following Conservation Guidelines apply to Scientific Research Areas:

   a. Scientific Research Areas should continue to be managed for the purpose of scientific research on the environment and natural resources;

   b. Scientific research activities should minimize any long-lasting impacts that may affect adjacent or nearby CLS lands; and

   c. Any land-use changes subject to Pima County jurisdiction should achieve the conservation goals of the underlying CLS category.

Policy 6: The following Conservation Guidelines apply to Multiple Use Management Areas:

   a. Across the entirety of the CLS landscape at least 66 ⅔ percent of the total acreage of lands within this designation shall be conserved as undisturbed natural open space;

   b. Land use and management goals within these areas focus on balancing land uses with conservation, restoration, and enhancement of native biological communities and must:

      1. Facilitate the movement of native fauna and pollination of native flora across and through the landscape;

      2. Maximize retention of on-site conservation values; and

      3. Promote landscape integrity.

   c. Projects subject to this policy within this designation will yield two conserved (mitigation) acres for each acre developed:

      1. Mitigation acres may be provided on-site, off-site, or in combination;

      2. The preference is for mitigation acres to be within Multiple Use Management Areas, any more protective category of the CLS, or Habitat Protection Priority Areas;
3. For purposes of this policy, Habitat Protection Priority Areas are those areas referenced and mapped as part of the 2004 Conservation Bond Program or any subsequent conservation bond program;

4. The 2:1 mitigation ratio will be calculated according to the extent of impacts to the total surface area of that portion of any parcel designated as Multiple Use Management Areas;

5. Development shall be configured in the least sensitive portion(s) of the property;

6. On-site mitigation area(s) of undisturbed natural open space will maximize conservation values and facilitate the movement of native fauna and pollination of native flora across and through the landscape;

7. Additional conservation exceeding 66⅔ percent will be encouraged through the use of development-related incentives and may utilize undisturbed natural open space on individual lots; and

8. A Transfer of Development Rights (TDR) may be used in order to secure lands utilized for mitigation, restoration, and/or enhancement purposes.

Policy 7: The following Conservation Guidelines apply to Agriculture In-Holdings within the Conservation Lands Systems:

   a. Intensifying land uses of these areas will emphasize the use of native flora, facilitate the movement of native fauna and pollination of native flora across and through the landscape, and conserve on-site conservation values when they are present; and

   b. Development within these areas will be configured in a manner that does not compromise the conservation values of adjacent and nearby CLS lands.

Policy 8: The following Conservation Guidelines apply to Special Species Management Areas:

   a. Across the entirety of the CLS landscape, at least 80 percent of the total acreage of lands within this designation shall be conserved as undisturbed natural open space and will provide for the conservation, restoration, or enhancement of habitat for the affected Special Species;

   b. Projects subject to this policy and within this designation will yield 4 conserved (mitigation) acres for each acre to be developed:

       1. Mitigation acres may be provided on-site, off-site, or in combination;

       2. The preference is for the mitigation acres to be within a designated Special Species Management Area;
3. The 4:1 mitigation ratio will be calculated according to the extent of impacts to the total surface area of that portion of any parcel designated as Special Species Management Area;

4. Development shall be configured in the least sensitive portion(s) of the property;

5. On-site area(s) of undisturbed natural open space will be configured to facilitate the movement of the relevant Special Species through the landscape and will include conservation values essential to survival of the relevant Special Species; and

6. A TDR may be used in order to secure mitigation lands.

c. Special Species and associated Conservation Guidelines may be added or deleted in the future based on the best available regional scientific information as developed by the Science Technical Advisory Team and added to or deleted from the Special Species Management Areas as shown on the CLS map; and

d. Additions and/or deletions to the list of Special Species or Conservation Guidelines for Special Species Management Areas will be processed as a comprehensive plan amendment.

Policy 9: The following Conservation Guidelines apply to Critical Landscape Connections:

a. Land-use changes in these broadly defined areas should protect existing biological linkages;

b. Where they occur, barriers to the movement of native fauna and pollination of native flora across and through the landscape should be removed and fragmented corridors of native biological communities should be restored;

c. Opportunities to remove barriers and restore corridor connectivity may arise as part of other, non-land use related activities (e.g., new construction for or upgrade of infrastructure services). Such opportunities should be pursued; and

d. High priority shall be given to identifying, preserving, and re-establishing the connection between native biological communities especially where natural connectivity is most constrained.

Policy 10: The Board of Supervisors has the sole authority to modify mitigation specified in any Conservation Guideline or otherwise determined the appropriate amount of mitigation necessary for a comprehensive plan amendment or rezoning to comply with the CLS, including increases, reductions and exemptions:

a. Requests to modify or be exempt from providing mitigation will be deliberated on a case-by-case basis; and
b. Staff may review proposals and make recommendations for the modification of mitigation rations, including exemption.

**Conservation Lands System Off-site Mitigation:**

*Policy 11:* The following guidelines apply to properties being considered for off-site mitigation:

a. The location of off-site mitigation properties should be within the same general geographic region of the original project site;

b. Off-site mitigation property should provide the same or better resource values as the original project site including, but not limited to:

   1. CLS designations inclusive of 2004 Conservation Bond Habitat Protection Priority designations or subsequent conservation bond programs;
   2. Vegetation community type (s);
   3. Habitat values for applicable CLS Special Species (e.g., breeding, dispersal);
   4. Surface water or unique landforms such as rock outcrops;
   5. Contribution to landscape connectivity; and
   6. Demonstration that the resource and conservation values of the off-site mitigation property will be protected in perpetuity.

c. Off-site mitigation of IRA may include the purchase and transfer of water rights that directly impact and/or support groundwater dependent ecosystems.

*Policy 12:* Lands that are to be reserved from development and which will provide CLS mitigation shall be conserved and managed, in perpetuity, for the benefit of the natural resources:

a. Various means may be utilized to protect conservation or mitigation lands including, but not limited to, the transfer of deeded property to Pima County, pending approval by the Board of Supervisors, or other conservation entities and the granting of conservation easements;

b. CLS mitigation lands shall be established as separate, natural open space parcel(s) from the development area; and

c. Residents, or associations of residents, of a development may not serve as the sole administrator or enforcement entity for the management and protection of those conservation or mitigation lands.
Amendments to the Conservation Lands System Map and Policies

Policy 13: Amendments to the CLS map and policies are appropriate only at such time as new, comprehensive, region-wide information is available.

Goal 1 Implementation Measures:

a. Applications for Comprehensive Plan amendment will:

1. Inventory and assess the site's conservation values and context within an area-wide landscape;

2. Analyze the biological impacts of the requested amendment;

3. Demonstrate that intensifying the land use designation will preserve the integrity of the CLS;

4. Promote development that is consistent with the existing infrastructure service area or land use planning and infrastructure studies that address the logical expansion of infrastructure services;

5. When requesting modification of or exemption from CLS Conservation Guidelines demonstrate that:

   i. SDCP goals are upheld;
   
   ii. Landscape integrity of the CLS remains intact;
   
   iii. On-site conservation values are protected, restored, or enhanced; and
   
   iv. Native fauna retain the ability to:

      1. Move across the landscape; and
      
      2. Pollinate native flora.

b. Staff will review Comprehensive Plan Amendment applications, at a minimum, for the following:

1. The site's landscape context as it relates to the biological, hydrological and built environments;

2. Potential biological impact of the requested amendment;

3. Preservation of the integrity of the CLS; and

4. Consistency with the existing infrastructure service area or land use planning and infrastructure studies that address the logical expansion of infrastructure services.
c. Approvals of Comprehensive Plan Amendments:

1. May include special area policies in order to govern or otherwise direct subsequent rezoning to specifically address conservation of certain landscape attributes; and

2. Will apply any modification of or exemption from Conservation Guidelines through any subsequent rezoning.

ci. Applications for rezoning will:

1. Inventory and assess the site's conservation values and context within an area-wide landscape;

2. Analyze the biological impacts of the requested application;

3. Demonstrate that intensifying the land use will preserve the integrity of the CLS;

4. Demonstrate that highly valued native flora and fauna species are conserved;

5. Provide for development that achieves at the least as much conservation as development under the existing zoning; and

6. When requesting modification of or exemption from Conservation Guidelines demonstrate that:
   i. SDCP goals are upheld;
   ii. Landscape integrity of the CLS remains intact;
   iii. On-site conservation values are protected, restored, or enhanced; and
   iv. Native fauna retain the ability to:
      1. Move across the landscape; and
      2. Pollinate native flora.

cii. Staff will review rezoning requests from the following, at a minimum:

1. Potential biological impact of the requested rezoning;

2. The site's landscape context as it relates to the biological and built environments;

3. The on-site presence of or potential to support highly valued native flora and fauna species and conservation of these species;

4. The occurrence of physical characteristics that contribute to biodiversity; and

5. Preservation of the integrity of the CLS.
f. Approvals of rezoning requests:

1. May include special conditions in order to govern or otherwise direct conservation of certain landscape attributes; and

2. Will apply any modification of or exemption from Conservation Guidelines.

g. Continue to implement the CLS of the SDCP.

h. Develop and implement development-related incentives appropriate for use in Multiple Use Management Areas. Incentives may, if appropriate, be established through revision of allowable zoning districts, overlays, comprehensive plan land use designations.

i. Continue to develop and refine guidance criteria for restoration, enhancement, and mitigation proposals.

j. Continue to develop and refine site design guidance and other site planning recommendations for environmentally-sensitive development.

k. Assess existing environmentally-related zoning code ordinances for opportunities to align implementation and create incentives accessible to existing and legal land uses, zoning, and permitted activities to promote broader support of CLS and goals of the Sonoran Desert Conservation Plan. Ordinances appropriate for review and revision may include:

   1. Native Plant Preservation Ordinance (18.72);
   2. Buffer Overlay Zone Ordinance (18.67);
   3. Cluster Development Option (18.09.040);
   4. Conservation Subdivision Requirements (18.09.100);
   5. Hillside Development Zone Ordinance (18.61);
   6. Modification of Development Standards in Riparian Areas (18.07.080);
   7. Landscape Buffering and Screening Standards (18.73); and
   8. Off-Street Parking and Loading Standards (18.75).

Pima Prospers: Excerpts from Chapter 10 - Comprehensive Plan Administration

10.13 – Conservation Lands System Definitions

Any proposed change in Appendix E to a definition related to any part of the Conservation Land System that would have the effect of changing a policy in Goal 1 of Section 3.4 of this plan (including Exhibits 3.4.1 and 3.4.2) shall be considered a substantial change requiring public hearings by the Planning and Zoning Commission and the Board of Supervisors.
Pima Prospers Glossary (Appendix E): Selected Terms & Definitions

**Agriculture In-Holdings within the Conservation Lands System:** Those designated lands utilized for agricultural purposes and lands where agricultural uses have been abandoned. Agricultural land uses, in general, are more conducive to the movement of native fauna and functional pollination processes than other lands supporting higher intensity uses. Intensifying the land uses on these areas could compromise landscape integrity, promote the spread of exotic species, and otherwise compromise the biodiversity of adjacent or nearby Conservation Lands System lands.

**Biological Core Management Areas:** Those lands that fulfill the five tenets used to construct the Conservation Lands System (CLS), but which provide greater biological diversity than Multiple Use Management Areas. They are primarily distinguished from other lands within the CLS by their potential to support high value habitat for five or more priority vulnerable species as identified by the Sonoran Desert Conservation Plan.

**Conservation:** The controlled use and systematic protection of a resource including, but not limited to, environmental or cultural resources, with the purpose of keeping such resources from harm.

**Conservation Lands System:** The Conservation Lands System (CLS) is the ultimate expression of those lands where conservation is fundamental and necessary to achieve the Plan’s biological goals, while delineating areas suitable for development. The CLS was renamed the Maeveen Marie Behan Conservation Lands System in November 2009 in memory of Dr. Behan’s work on the Sonoran Desert Conservation Plan (SDCP) and the development of the CLS.

**Critical Landscape Connections:** Six broadly-defined areas that provide connectivity for movement of native biological resources but which also contain potential or existing barriers that tend to isolate major conservation areas. These regional-scale connections are:

1. Across the I-10 / Santa Cruz River corridors in the northwest;
2. Between the Catalina and Tortolita Mountains;
3. Across the I-10 corridor along Cienega Creek in the east;
4. Across the I-19 and Santa Cruz River corridors in southern Pima County;
5. Across the Garcia strip extension of the Tohono O’odham Nation; and
6. Across the Central Arizona Project canal in Avra Valley.

**Development:** The physical extension and/or construction of the built environment. Development-related activities include: subdivision of land; construction or alteration of structures, roads, utilities, and other facilities; grading; and clearing of natural vegetative cover (with the exception of agricultural activities); as well as, the creation of parks and recreation facilities.

**Important Riparian Areas:** Areas characterized by hydro-riparian, meso-riparian, and xero-riparian biological communities. Hydro-riparian communities generally exist where vegetation is supported by perennial watercourses or springs. Meso-riparian communities generally exist where vegetation is supported by perennial or intermittent watercourses or shallow groundwater. Xero-riparian communities generally exist where vegetation is supported by an ephemeral watercourse. Important
riparian areas are valued for their higher water availability, vegetation density, and biological productivity. In addition to the inherent biological values, important riparian areas including their associated upland areas provide a framework for linkages and landscape connections. They are essential elements in the Conservation Lands System.

**Multiple Use Management Areas:** Those lands that fulfill the five tenets used to construct the Conservation Lands System (CLS), but which are not as biologically rich as those lands designated as Biological Core Management Areas. They are primarily distinguished from other lands within the CLS by their potential to support high value habitat for three or more priority vulnerable species as identified by the Sonoran Desert Conservation Plan.

**Scientific Research Areas:** These areas are currently managed for scientific research: the Santa Rita Experimental Range and the University of Arizona Desert Laboratory at Tumamoc Hill. Land uses and management within these areas focus on balancing conservation, restoration, and enhancement of natural communities in support scientific research on the environment and natural resources (e.g., monitoring ecological change, measuring effects of experimental grazing methods).

**Special Species Management Areas:** Areas defined as crucial to the conservation of specific native floral and faunal species of special concern to Pima County. Currently, three species are designated as Special Species: Cactus ferruginous pygmy-owl, Mexican spotted owl, and Southwest willow flycatcher.

**Transfer of Development Rights (TDR):** Transfers of development rights are used to transfer ownership of development potential from lands where development is less desirable to lands where it is more desirable. The land from which development is transferred is generally called the “Sending Property” and the property to which it is transferred is called the “Receiving Property”.
March 2022

Sonoran Desert Conservation Plan

PIMA COUNTY

Board of Supervisors
Sharon Bronson, Chair, District 3
Adelita S. Grijalva, Vice Chair, District 5
Rex Scott, District 1
Dr. Matt Heinz, District 2
Steve Christy, District 4

Pima County Administrator
Chuck Huckelberry

PIMA COUNTY
SUSTAINABILITY & CONSERVATION

201 N. Stone Ave., 6th Floor, Tucson, AZ 85701
520-724-6940
pima.gov/sdcp