

# Coalition for Sonoran Desert Protection

## Community Vision for the Sonoran Desert Conservation Plan and Multiple Species Conservation Plan

### Introduction

The Coalition for Sonoran Desert Protection is pleased to present this Community Vision for the Multiple Species Conservation Plan (MSCP), outlining important next steps to achieve species and habitat conservation goals under the Sonoran Desert Conservation Plan. This Vision reflects and builds upon recommendations of the SDCP Citizen's Steering Committee, and is intended as a constructive contribution to discussion of the recently formed MSCP Implementation Committee.

The Sonoran Desert Conservation Plan aims to preserve the quality of life of all Pima County residents by protecting native species and habitat, mountain parks, ranches, cultural and historic resources, and others while planning responsibly for development. The Multiple Species Conservation Plan will implement species and habitat conservation goals of the broader SDCP. The historic open space bond just approved by county voters will also provide crucial resources to carry out the MSCP. Following the bond election, the time is right for our community to continue this progress towards a truly visionary and effective conservation plan.

For a truly effective Multiple Species Conservation Plan, the County should:

Outline specific conservation goals for each species – The MSCP should actually benefit each plants and animal addressed by the plan. The MSCP should therefore spell out specific conservation goals and objectives for each species, and especially the rarest species. These goals and objectives should be based on the current status of each species, including how rare it is and what the current threats are.

Protect the most important lands – The MSCP should incorporate valuable information developed by the Science Technical Advisory Team and conserve the most biologically valuable lands in the county. Several different tools can be utilized to conserve these lands, including:

- Acquisition – Open space bonds and other funds should be utilized to purchase important lands, or to purchase development rights, water rights, or others attached to those lands;
- Voluntary incentives and regulations – Voluntary incentives should be provided to encourage landowners to protect the most important areas of their property while allowing development to continue in other areas. The county should also improve and consolidate its existing land use codes in order to provide protections to the most important lands and, at the same time, streamline

development permitting.

- **Mitigation banks** – Mitigation banks consist of high-value lands purchased by the County or other participating jurisdictions. These lands are then marketed to landowners, who can purchase credits from these lands to offset development which is occurring on other lands that have similar biological value.

Improve and simplify current land use codes – The current land use code for the county should be improved and consolidated in order to provide better protection for the most important lands, species and habitats, and to simplify development permitting. This will improve the current development permitting to reflect the goals of the MSCP, and improve the flexibility of the system for the benefit of property owners.

Manage and monitor conserved land – Proper adaptive management and monitoring plans are vital to ensuring a successful MSCP. By monitoring current management systems and adjusting those systems based on what works and what does not, the county can ensure the long-term protection of the most important lands, species, and habitats.

Provide assured funding – It is critical that assured funding is made available to carry out the conservation plan's goals and objectives. The bond is an important first step, but more will be necessary in the future. While there are a variety of possible funding mechanisms, the burden of funding the plan should clearly be shared by all beneficiaries. That includes property owners and others who benefit from the expedited take permits, the local public enjoying the open space, and taxpayers nationwide who support endangered species protection.

Allow for periodic independent review of plan's progress – Periodic, independent review of MSCP implementation should ensure that sound science continues to guide decisions, and that the public is provided ample opportunity to review the progress of the plan.

## I. Essential Elements of the Multiple Species Conservation Plan

Several elements are essential to the success of Pima County's planned Multiple Species Conservation Plan (MSCP) and to ensure a balance between urbanization and natural resource conservation. These elements are also necessary to make certain that the program meets Endangered Species Act legal requirements to minimize and mitigate take of imperiled species to the maximum extent practicable, provide assured funding, and ensure that permitted activities will improve the conservation status of species covered by the plan:<sup>1</sup>

- Measurable conservation goals and objectives
- Conserved land
- Consolidated and improved land use code
- Protective management and monitoring of conserved lands
- Assured funding
- Periodic independent review of documents and implementation

Several of these elements have been the subject of consideration and recommendations by the County's MSCP Steering Committee. This document supports Steering Committee recommendations and is intended to provide additional recommendations for necessary MSCP implementation details.

The Endangered Species Act (ESA) contains a strong mandate that Habitat Conservation Plans (HCPs) like Pima County's Multiple Species Conservation Plan must include all possible measures to minimize and mitigate take of species covered by the program to the maximum extent practicable.<sup>2</sup>

Unfortunately, HCPs often emphasize mitigation instead of minimization by excluding controversial standards for avoidance of sensitive habitats and covered species during project design. Mitigation is an important component of HCPs, but this must be preceded by earlier, project-level steps to minimize harm to covered species, including consideration of less harmful alternative projects, project redesign, project relocation and reduction of project footprint among others. HCPs must specifically articulate those limited circumstances under which unavoidable impacts will be authorized as permitted activities proceed, especially for the rarest species and habitats.

HCPs must include an objective and independent evaluation of any assertions by agency participants or beneficiaries that certain avoidance, minimization, and mitigation measures are "impracticable" or "infeasible." Such assertions must be supported by reliable and specific

---

<sup>1</sup> These elements have been recognized by the County's Steering Committee as "essential elements" of the MSCP.

<sup>2</sup> See 16 U.S.C. § 1539(a)(2)(B)(ii): "...the [HCP] applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking."

documentation of impracticability or infeasibility. See U.S. Fish and Wildlife Service Habitat Conservation Planning Handbook at 7-3. The alternatives analysis must not be constrained by what the take permit applicant or beneficiaries deem economically practicable or feasible.

Courts have struck down HCPs and associated take permits for failing to ensure that their effects had been minimized and mitigated to the maximum extent practicable. National Wildlife Federation, et al. v. Babbitt,<sup>3</sup> Sierra Club et al. v. Bruce Babbitt et al.<sup>4</sup> According to the National Wildlife Federation ruling,

...the statutory phrase “maximum extent practicable” nonetheless requires the Service to consider an alternative involving greater mitigation.... The plain language of the [Endangered Species Act]...is not satisfied by a fee set, as here, at the minimum amount necessary to meet the minimum biological necessities of the covered species.”<sup>5</sup>

The Endangered Species Act also contains a strong mandate that HCPs must not appreciably reduce the likelihood of the survival and recovery of covered species in the wild. 16 U.S.C. §1539(a)(2)(B)(iv). HCPs must also go one step further and provide a net benefit, or “conserve” covered species.

Congress titled ESA Section 10 “conservation plans” consistent with the Section 3 definition of the term “conservation” to include all measures necessary to bring federally listed species to a point at which ESA protections are no longer necessary. 16 U.S.C. §1532(3). “[A]ll measures necessary...” should include measures consistent with any recovery plans prepared pursuant to Section 4(f) of the ESA. HCPs must therefore be consistent with available recovery plans, and move beyond the status quo to actively improve the conservation status of all covered species, especially the rarest species. HCPs must provide a net benefit to covered species even if the planning area is just a portion of the species’ range.

Pima County’s MSCP should include the following elements (A-G) to ensure that the program will fully minimize and mitigate harm to sensitive habitats and covered *Priority Vulnerable Species*,<sup>6</sup> ensure that permitted activities will help recover these species, provide assured funding, articulate and shape a coherent program, and uphold community values.

#### **A. Measurable Conservation Goals and Objectives**

Measurable goals and objectives are necessary to guide implementation of the MSCP. One of the primary purposes of the MSCP is to authorize take of Priority Vulnerable Species covered by the program. This authorization is provided in exchange for a commitment by the

---

<sup>3</sup> 128 F. Supp. 2d 1274 (E.D.Cal. 2000)

<sup>4</sup> 15 F. Supp. 2d 1274 (S.D.Ala.1998)

<sup>5</sup> 128 F. Supp. 2d 1292-93

<sup>6</sup> “Priority Vulnerable Species” are species identified in the amended Priority Vulnerable Species document and that may be identified as “covered” for the purposes of achieving conservation goals of the Sonoran Desert Conservation Plan, standards of a multiple species habitat conservation plan and Endangered Species Act section 10 incidental take permit.

County to carry out other activities to benefit the species. In order to ensure that the actions proposed by the County actually benefit these species, measurable goals and objectives should be established as conditions for the take permit, conditions of coverage for specific species under the permit, and conditions for “No Surprises” assurances provided to property owners and other beneficiaries seeking protection from future liability under the ESA. Measurable goals and objectives greatly contribute to transparency in HCP planning and implementation and help maintain public trust.

Specific goals and objectives should be provided for a number of MSCP elements to ensure success of the program and to allow independent tracking of program progress. Goals and objectives should be provided for *conserved land*<sup>7</sup> in each category of the *Conservation Lands System*<sup>8</sup> and for the rarest MSCP elements like *narrow endemic species*,<sup>9</sup> *Special Elements*<sup>10</sup> and others. For example, specific benchmarks of land conservation should be

---

<sup>7</sup> “Conserved land” is acquired, mitigation and set-aside land protected through dedication as permanent natural open space, and provided with a permanent management endowment, permanent land manager, and permanent area-specific management and monitoring.

<sup>8</sup> “Conservation Lands System” is the Comprehensive Plan system identifying biological sensitivity of all land within the borders of Pima County, established by County government in cooperation with the Sonoran Desert Conservation Plan Science Technical Advisory Team, and including Biological Core Management Area, Special Species Management Area or equivalent, and Multiple Use Management Area, Important Riparian Areas, Critical Landscape Linkages, Priority Conservation Areas, Special Elements, and others.

<sup>9</sup> “Narrow endemic species” are the rarest and/or narrowest range Priority Vulnerable Species in need of special protections from development and/or other special protective management to achieve conservation goals of the Sonoran Desert Conservation Plan and standards of the Multiple Species Habitat Conservation Plan and Endangered Species Act section 10 incidental take permit. Super priority vulnerable species are:

Merriam’s mouse  
Western yellow-billed cuckoo  
Cactus ferruginous pygmy-owl  
Burrowing owl  
Southwestern willow flycatcher  
Chiricahua leopard frog  
Lowland leopard frog  
Tucson shovel nosed snake  
Ground snake (valley form)  
Mexican garter snake  
Desert pupfish

Gila topminnow  
Longfin dace  
Desert sucker  
Sonora sucker  
Gila chub  
Talus snails  
Pima pineapple cactus  
Nichol’s turk’s head cactus  
Needle-spined pineapple cactus  
Huachuca water umbel

<sup>10</sup> “Special Elements” are ecological features and biological resources identified in the amended Special Elements document of March 2002.

established for each of the narrow endemic species over the life of the MSCP, and take authorization provided only after completion of conservation activities identified in the previous increment.

All HCPs must contain biological goals and objectives according to the U.S. Department of Interior and Commerce's Final Addendum to the Handbook for Habitat Conservation Planning and Incidental Take Permitting Process (a.k.a. "five-point policy"). See 65 Fed. Reg. 35250-35252, June 1, 2000. According to the policy,

Determination of the biological goals and objectives is integral to the development of the operating conservation program.

In the context of HCPs, biological goals are the broad, guiding principles for the operating conservation program. They are the rationale behind the minimization and mitigation strategies.

For more complex HCPs, biological objectives can be used to step down the biological goals into manageable, and, therefore, more understandable units.

...the biological goals and objectives of HCPs covering [species with recovery plan goals] should support the recovery goals and conservation.

*Id.* at 35251. Goals and objectives must address each species covered by a HCP. Landscape or habitat-level goals and objectives alone are not adequate to provide for a successful HCP.

...each covered species must be addressed as if it were listed and named on the permit. Although the goals and objectives may be stated in habitat terms, each covered species that falls under that goal or objective must be accounted for individually as it relates to that habitat.

*Id.* at 35251. Biological goals and objectives should be established in consideration of the rarity, endemism, population viability and connectivity needs for each species covered by Pima County's MSCP.

Biological goals and objectives must include protective management and monitoring measures specific to each covered species and specific conserved land, as discussed in the five-point policy. *Id.* at 35251. These must include objectives for the number of populations of each species, or the amount of conserved land that will be secured over the life of the permit. Objectives for the program must also clearly articulate those limited circumstances under which un-avoidable impacts will be authorized as permitted activities proceed.

The rarest and/or narrowest range species covered under the MSCP will require greater and more specific protective measures than others. These species – referred to in this document as narrow endemic species – should be provided more rigorous goals and objectives to ensure that the MSCP lives up to Endangered Species Act legal requirements.

Some multiple species HCPs operate under the flawed assumption that general habitat protection will automatically result in conservation of all covered species. While this may be true for more common, wider ranging species, general habitat protection alone will not make a successful MSCP for the rarest species. According to the five-point policy,

...populations of a narrow endemic species that occur within a wider ranging habitat type may not be adequately covered by an HCP that depends solely on amount of habitat conserved in a broad general area and does not specify particular locations where the habitat for that species is conserved.

*Id.* at 35245.

## **B. Conserved Land**

Conserved land and the Conservation Lands System should serve central roles in implementing MSCP goals and objectives. The Conservation Lands System should serve as a guide to protect Priority Vulnerable Species and Special Elements by consolidating and connecting conserved land, focusing and increasing the efficiency of protective management, and minimizing the harmful edge effects of urbanization.

1. Elements of the Conservation Lands System – A Conservation Lands System map recommended by the Scientific Technical Advisory Team should be adopted as part of the MSCP because this represents the best available scientific information on the general location of high conservation value land in Pima County.<sup>11</sup> The CLS should ultimately encompass the following general elements:<sup>12</sup>

- Acquisition areas, including new land acquisitions and other similar protections
- Regulated areas, including Conservation Lands System *set-aside land*<sup>13</sup> and mitigation land
- Mitigation banks

- a. Acquisition areas – The Conservation Lands System should include a specific amount of newly conserved land secured through outright acquisition or similar protections as a condition of the take permit and assurances.

Other similar methods of securing conserved land may include purchase of mitigation bank properties, purchase of development, water, mineral and grazing rights and accompanying conservation easements.

Two possible timing methods provide the best options for land acquisitions or other similar protections to secure conserved lands and

---

<sup>11</sup> Steering Committee recommendations.

<sup>12</sup> Steering Committee recommendations.

<sup>13</sup> “Set-aside land” is that portion of any property within the Conservation Lands System outside of the allowable development area.

accomplish MSCP goals and objectives – the “up-front” and the “milestones” methods. Some new land acquisitions should occur prior to program approval under either method as a condition of the take permit and assurances.

Under the “up-front” method, all land acquisitions and other similar protections should occur within a relatively short period of time – perhaps 5 years – before and after MSCP program approval, and as a condition of the take permit and assurances. The benefits of this method include an early conservation benefit and reduced total land acquisition cost through early acquisitions, and earlier U.S. Fish and Wildlife Service approval of the total anticipated take of species covered by the MSCP. However, high up-front costs may render this method difficult under a program as large as Pima County’s.

Under the “milestones” method, land acquisitions and other similar protections should be tiered to specific, measurable benchmarks of land acquisitions and similar protections to secure conserved land over the life of the MSCP.<sup>14</sup> This method is valuable to spread the burden of land acquisition costs over the duration of the program. However, total MSCP land acquisition costs may increase due to rising land values, and take of covered species can only be authorized incrementally over the duration of the program, commensurate with accomplishment of land acquisition benchmarks. Each milestone should be included as a condition of the MSCP take permit and assurances.

- b. Regulated areas – Conserved land should also be protected through set-asides and mitigation (i.e. protection or restoration of replacement habitat) as land is developed over the life of the program. The MSCP should use voluntary incentives to the extent possible in both planning decisions and in the implementation of the Conservation Lands System.<sup>15</sup> Set-asides and mitigation should be carried out according to standards in a consolidated and improved land use code, and identified as conditions of the take permit and assurances. Set-asides and mitigation should be carried out depending on location of a property within various categories of the CLS, or outside of the CLS.

Please see the Consolidated and Improved Land Use Code section below for a more detailed discussion of necessary MSCP land use regulation.

---

<sup>14</sup> Steering Committee recommendations: “The Steering Committee recognizes that the successful implementation of the [MSCP] over an extended period requires the inclusion of reasonable benchmarks. The Steering Committee recommends that benchmarks to monitor the plan’s implementation be identified. The benchmarks would be defined primarily in terms of acres to be conserved. There would be special emphasis on the benchmark(s) to be reached in the first five years.”

<sup>15</sup> Steering Committee recommendations.

- c. Mitigation banks – Mitigation banks should secure conserved land when Pima County or other participating jurisdictions purchase high conservation value properties inside of the Conservation Lands System and subsequently market credits from these properties to private land owners, County departments, or others with mitigation obligations.

Mitigation banking will assist the County in accomplishing a number of important program goals benefitting property owners, County departments, and others, including easing and improving the efficiency of mitigation for development impacts, and reducing the cost and burden of identifying and securing suitable mitigation land (e.g. surveys, title searches, appraisals, etc.).

Mitigation banking should also become an important method to accomplish a number of biological goals and objectives. Mitigation banking will enable the County to secure conserved land in a viable and consolidated conservation configuration, encourage *in-kind mitigation*<sup>16</sup> into these areas, and ensure conservation commensurate with impacts MSCP resources. Mitigation banks will be particularly important to achieve the goal of commensurate conservation of narrow endemic species, especially the Cactus ferruginous pygmy-owl and Pima pineapple cactus, Special Elements, and *Critical Landscape Linkages*.<sup>17</sup>

A number of steps will be necessary to ensure that mitigation banking will benefit property owners and others, and accomplish biological goals and objectives:

- A mitigation banking accounting system should be established where 1 mitigation bank credit equals 1 acre. The number of necessary mitigation bank credits should be calculated according to the amount of impacted acres of native vegetation where any impacts of less than 1 full acre are rounded up to one full acre.

---

<sup>16</sup> “In-kind mitigation” is mitigation resulting in conservation of the same biological resource values as those impacted by development. Examples of in-kind mitigation are as follows:

1. Mitigation land for unavoidable impacts to wetlands containing cottonwood-willow vegetation shall contain other cottonwood-willow vegetation.
2. Mitigation land for unavoidable impacts to Pima pineapple cactus populations shall contain other Pima pineapple cactus populations of similar density to those impacted.

<sup>17</sup> “Critical Landscape Linkages” are areas identified as Critical Landscape Linkages in the amended Priority Vulnerable Species document, or as Critical Landscape Connections under the Conservation Lands System.

- Mitigation banks should be located within Habitat Protection Priority Areas and in the Biological Core Management Area.
- Mitigation banks should be acquired prior to, or concurrent with anticipated development.
- Mitigation banks should contain the same narrow endemic species and Special Elements as those impacted by any development utilizing the bank.
- Mitigation banks for Pima pineapple cactus should be located in the same Pima County Comprehensive Plan Subregion (i.e. Northwest, Rincon Southeast / Santa Rita, etc.) as the majority of any development utilizing the bank.
- Mitigation banks should be located in the same Critical Landscape Linkages as the majority of any development utilizing the bank.
- Mitigation banks should be located inside the same Cactus ferruginous pygmy-owl Recovery Area or Special Management Area as the majority of any development utilizing the bank.
- Mitigation banks should be located inside the same narrow endemic species *Priority Conservation Area*<sup>18</sup> as the majority of any development utilizing the bank.
- Mitigation banks should be free of all significant harmful land use practices that impair mitigation values, including grazing and off-highway vehicle use.

A number of other steps are necessary to ensure that the marketing of mitigation bank credits will benefit property owners and others, and accomplish biological goals and objectives:

- Mitigation bank credits should only be authorized if obtained prior to authorization of any development.
- Mitigation bank credits should only be authorized for mitigation banks existing at the time of authorization of any development.
- Mitigation bank credits should only be authorized for mitigation banks located within Habitat Protection Priority Areas and in the Biological Core Management Area, with few exceptions.
- Mitigation bank credits should only be authorized when they

---

<sup>18</sup> “Priority Conservation Areas” are those areas identified as Priority Conservation Areas in the amended Priority Vulnerable Species document.

contain the same narrow endemic species and Special Elements as those impacted by any development.

- Mitigation bank credits for impacts to Pima pineapple cactus should only be authorized in the same Pima County Comprehensive Plan Subregion (i.e. Northwest, Rincon Southeast / Santa Rita, etc.) as any development.
- Mitigation bank credits for impacts to Critical Landscape Linkages should only be authorized in the same Critical Landscape Linkage as any development.
- Mitigation bank credits for impacts to the Cactus ferruginous pygmy-owl should only be authorized in the same Recovery Area or Special Management Area as any development.
- Mitigation bank credits for impacts to narrow endemic species should only be authorized in the those species' Priority Conservation Areas 1 and 2.
- Mitigation bank credits should only be authorized when they are free of all significant harmful land use practices that impair mitigation values, including grazing and off-highway vehicle use.

2. Location of conserved land – Acquisition areas and mitigation banks should be located within *Habitat Protection Priority Areas* identified in the Steering Committee's Habitat Protection Priorities map and in the *Biological Core Management Area*.<sup>19,20</sup> The Habitat Protection Priority Area map is the result of application of the following conservation goals and selection criteria for land protection identified by TNC and AOLT:

- Maximize the benefit of existing protected areas by increasing their size.
- Emphasize protection of the rarest habitat types or Special Elements as per the Scientific Technical Advisory Committee.
- Maintain a network of protected land where native habitat and natural corridors remain.
- Systematically evaluate land throughout Pima County so that priorities are identified in all of the County's biologically important areas.
- Land identified in the most biologically important Conservation Lands

---

<sup>19</sup>“Biological Core Management Area” is those areas identified as the Biological Core Management Area under the Conservation Lands System.

<sup>20</sup> Steering Committee recommendations.

System categories of Biological Core Management Area, *Important Riparian Areas*,<sup>21</sup> and *Special Species Management Area*.<sup>22</sup>

- Private land equal to or greater than 10 acres in size in vacant or agricultural status
  - State Trust land within the Conservation Lands System categories of Biological Core Management Area, Important Riparian Areas, and Special Species Management Area, emphasizing land eligible for conservation under the Arizona Preserve Initiative
3. Formula to estimate a total conserved land acreage obligation – The amount and location of conserved land in acquisition areas, regulated areas, and mitigation banks should ultimately reflect MSCP goals and objectives.<sup>23</sup> The County should estimate the total conserved land acreage necessary to achieve MSCP goals and objectives in cooperation with the U.S. Fish and Wildlife Service. New County land acquisitions or other similar protections, set-asides and mitigation land from development regulations, and mitigation banks should contribute the majority of the total necessary acreage of MSCP conserved land. Estimation of the County’s total conserved land acreage obligation should be based on the following factors:
- The total acreage of currently undeveloped land in unincorporated Pima County likely to be developed over the life of the MSCP should be estimated. This figure should be identified for both the entire County as well as broken down to reflect acreage in each category of the Conservation Land System, and land outside of the CLS. This figure should be based on current zoning, and projected population and economic growth over the life of the MSCP. This figure should include consideration of projected impacts of County public works and capital improvement projects.
  - Important Riparian Areas are extremely high conservation value lands providing connectivity of conserved land, habitat for many Priority Vulnerable Species, water quality protection and other values. Impacts to Important Riparian Areas should therefore be avoided to the maximum extent practicable inside and outside of the Conservation Lands System. Unavoidable impacts should not exceed 5% of the total amount of Important Riparian Areas on any property, and unavoidable impacts should be mitigated at a ratio of 1:1.

---

<sup>21</sup> “Important Riparian Areas” are those areas identified as Important Riparian Areas under the Conservation Lands System.

<sup>22</sup> “Special Species Management Area” or equivalent are those areas identified as the Special Species Management Area or equivalent under the Conservation Lands System.

<sup>23</sup> Steering Committee recommendations.

- Critical Landscape Linkages are another extremely important Conservation Lands System category providing for ecological connectivity of conserved lands. Critical Landscape Linkages should therefore be subject to mandatory 80% set-asides inside and outside of the Conservation Lands System, and any impacts to the 20% allowable development area mitigated at a ratio of 1:1.
- Impacts to land in each Conservation Lands System category should be mitigated consistent with Comprehensive Plan Conservation Lands System Regional Plan Policies while providing property owners maximum flexibility to develop their property as they see fit. For example, impacts to properties located within the Biological Core Management Area or Special Species Management Area should be mitigated at a ratio of 4:1, either on or off-site of the impacted property. Similarly, impacts to *Multiple Use Management Areas*<sup>24</sup> should be mitigated at a ratio of 3:1.
- Impacts to land outside of the Conservation Lands System containing native vegetation should generate acquisition of conserved land inside of the CLS at a ratio of 1:1.

Based on these considerations, the total conserved land acreage obligation should be estimated according to the following formula:

$$\begin{aligned}
 & \frac{\text{[Total acreage of currently undeveloped land likely to be developed over the} \\
 & \quad \text{life of the MSCP inside of Important Riparian Areas]}}{\quad} \\
 & \quad + \\
 & \frac{\text{[Total acreage of currently undeveloped land likely to be developed over the} \\
 & \quad \text{life of the MSCP inside of Critical Landscape Linkages]}}{\quad} \\
 & \quad + \\
 & \frac{\text{[Total acreage of currently undeveloped land likely to be developed over the} \\
 & \quad \text{life of the MSCP in the Biological Core Management Area multiplied by .8 - 4]}}{\quad} \\
 & \quad + \\
 & \frac{\text{[Total acreage of currently undeveloped land likely to be developed over the} \\
 & \quad \text{life of the MSCP in the Special Species Management Area multiplied by .8 - 4]}}{\quad} \\
 & \quad + \\
 & \frac{\text{[Total acreage of currently undeveloped land likely to be developed over the} \\
 & \quad \text{life of the MSCP in the Multiple Use Management Area multiplied by .75 - 3]}}{\quad} \\
 & \quad + \\
 & \frac{\text{[Total acreage of currently undeveloped land likely to be developed over the} \\
 & \quad \text{life of the MSCP in Urbanizing Areas]}}{\quad} \\
 & \quad + \\
 & \frac{\text{[Total acreage of currently undeveloped land likely to be developed over the} \\
 & \quad \text{life of the MSCP outside of the Conservation Lands System containing native} \\
 & \quad \text{vegetation]}}{\quad}
 \end{aligned}$$

---

<sup>24</sup> “Multiple Use Management Area” is that area identified as the Multiple Use Management Area under the Conservation Lands System.

Application of this formula will result in an estimate reflecting a range of the County's total conserved land acreage obligation. This estimate should be included as a condition of the take permit. The adequacy of the amount of conserved land secured over the life of the take permit should be monitored by measuring the actual amount of land impacted by development against Conservation Lands System goals and objectives and the County's total conserved land acreage obligation.

### C. Consolidated and Improved Land Use Code

The County's land use code should be consolidated and improved to support MSCP goals and objectives, and crafted as conditions of the take permit and assurances. A draft of the consolidated and improved code should be provided for public review as part of a draft MSCP package.<sup>25</sup>

The County should also adopt Environmentally-Sensitive Roadway Design Guidelines and incorporate these in the Roadway Design Manual and code for both capital improvement projects and new development.

The consolidated and improved land use code should provide property owners and County departments flexibility in meeting regulatory obligations to achieve MSCP goals and objectives.

The consolidated and improved code should apply to all discretionary development permitting activities and County public works and capital improvement projects, and should become a primary mechanism to implement MSCP measures to minimize and mitigate the effects of development on biological resources. A new Conservation Lands System overlay zone(s) should guide application of the code. The code should provide the following conservation measures:

- Higher level of project site analysis for properties inside of the Conservation Lands System
- Lower level of project site analysis for properties outside of the Conservation Lands System
- *Avoidance to the maximum extent practicable*<sup>26</sup> of narrow endemic species and others of the rarest biological resources
- Higher levels of in-kind mitigation for development impacts inside of the Conservation Lands System
- Lower levels of in-kind mitigation for development impacts outside of the Conservation Lands System
- Permanent protection of mitigation land as conserved land
- Protective management and monitoring

---

<sup>25</sup> Steering Committee recommendations.

<sup>26</sup> "Avoidance to the maximum extent practicable" means that unavoidable impacts to a particular resource are only permitted if necessary to provide essential public health and safety projects, one single-family dwelling or other minimum constitutional property use, or a biologically superior alternative.

The code should also benefit property owners and others by simplifying, consolidating, and improving existing regulations, and provide various compliance options to improve regulatory flexibility. The code should include measures to minimize expense and to streamline decision making for property owners generally, with assurances that an individual property owner may construct one single family dwelling.<sup>27</sup>

#### **D. Protective Management and Monitoring of Conserved Land**

Protective management and monitoring is necessary to carry out MSCP goals and objectives and to ensure long-term protection of conserved land and biological resources. Two types of protective management and monitoring plans will be necessary to ensure the success of the MSCP – an overarching framework protective management and monitoring plan, and many area-specific management and monitoring plans.

Specific details of protective management and monitoring plans should be included as conditions of the take permit and related assurances. A publicly-accessible, independent and non-profit Sonoran Desert Conservancy should be established and endowed to receive conserved land and oversee implementation of the protective management and monitoring plans.

Central in the protective management and monitoring plans should be identification of a non-profit stewardship organization, measures to minimize the harmful edge effects of adjacent development, measures to conserve Priority Vulnerable Species and habitats, measures to identify necessary management adjustments, and others.<sup>28</sup>

The protective management and monitoring plans should provide many of the essential MSCP implementation details. The plans should provide the specific details necessary to carry out protective, adaptive management and monitoring of all conserved land, and Priority Vulnerable Species, Special Elements, and other resources located on those lands.

Protective management and monitoring plans are an essential component of the MSCP, and are indispensable in ensuring full minimization and mitigation of all development impacts, and that development impacts will not appreciably reduce the likelihood of survival and recovery of Priority Vulnerable Species. Monitoring also is a mandatory element of all HCPs (See 50 C.F.R. 17.22, 17.32, and 222.307), according to the five-point policy. 65 Fed. Reg. 35251.

The monitoring program plays as essential role of determining whether the chosen strategy(ies) is providing the desired outcome (i.e. achieving the biological goals of the HCP).

*Id.* at 35253. The monitoring plan should be a component of the MSCP's protective management program.

---

<sup>27</sup> Steering Committee recommendations.

<sup>28</sup> Steering Committee recommendations.

The protective management and monitoring plan should also include an adaptive management component.<sup>29</sup>

Many HCPs lack detailed protective management or monitoring plans at the time of approval, despite their importance and in violation of the ESA and implementing regulations.

1. Implementation and timing of protective management and monitoring plans – A framework protective management and monitoring plan should provide a detailed overview of measures necessary to manage all conserved land under the MSCP. The framework protective management and monitoring plan should be prepared prior to County approval of the program and distributed for public review and comment as a part of the total draft MSCP package.

Area-specific protective management and monitoring plans should provide details on protective management of specific existing conserved land, as well as land conserved in the future.

Area-specific protective management and monitoring plans for land protected in the future should be prepared concurrent with land development plans, set-asides, and other acquisitions. Future development inside the CLS should not be authorized without area-specific management and monitoring plans for set-aside land and mitigation land, nor without arrangements for a land manager and permanent management and monitoring.

All protective management and monitoring plans should be reopened for public and agency review, comment and possible revisions at least once every 3 years.

Many MSCP protective management and monitoring activities should occur in perpetuity, as a condition of the take permit and related assurances, and irrespective of the duration of the take permit. Perpetual protective management and monitoring necessarily reflects the permanence of development impacts to the Priority Vulnerable Species, Special Elements, and other MSCP resources, as well as the likelihood of reduced conservation values in the absence of continued management.

For example, riparian habitat may be secured as conserved land as mitigation for the loss elsewhere of Southwestern willow flycatcher habitat to development. Management of the conserved riparian habitat will be necessary to limit the spread of exotic, invasive species like salt cedar and Brown-headed cow birds. The conservation value of this habitat could be lost if management ends with expiration of the Section 10 permit.

Assured funding must be provided for protective management and monitoring activities, as discussed below.

#### **E. Assured Funding**

---

<sup>29</sup> Steering Committee recommendations.

Assured MSCP funding is necessary to carry out program goals and objectives and provides the greatest likelihood that funding will remain available over the life of the program and through varying political climates. Assured funding should be provided to carry out the following components of the MSCP over the life of the program and as a condition of the take permit and assurances:<sup>30</sup>

- New land acquisitions and other similar protections
- Acquisition of mitigation banks
- Protective management and monitoring of conserved land
- Contingency funding to compensate for any constitutional takings
- Contingency funding for changed and unforeseen circumstances
- Periodic independent review
- Administration

The following are possible assured funding mechanisms:

- Open space bond,<sup>31</sup> if approved prior to program approval or implementation of program “milestone” segments (See discussion below)
- Mitigation and management fees
- Dedicated general funds
- Reallocated current property taxes
- Tax increment financing
- Community park maintenance districts
- New sales tax

The burden of funding the MSCP should be shared by all parties who will benefit from the program – property owners and other beneficiaries of expedited endangered species take permits, the local public enjoying MSCP open space, and taxpayers nationwide who support federal endangered species protection.<sup>32</sup> Funding for new MSCP land acquisition should be shared fairly between the public and private sectors. Not more than 50% of MSCP funding should come from affected private landowners. Not less than 50% of MSCP funding should come from publicly-funded sources.<sup>33</sup>

All HCPs must include an assured funding source for program implementation. 16 U.S.C. §1539(a)(2)(A)(iii). Courts have invalidated take permits for failing to ensure that promised conservation actions would be funded.<sup>34</sup> Yet many HCPs rely on uncertain

---

<sup>30</sup> Steering Committee recommendations.

<sup>31</sup> Steering Committee recommendations.

<sup>32</sup> Steering Committee recommendations: “The Steering Committee recommends that the cost of implementation of the Section 10 permit and the MSHCP be fairly distributed among the community.”

<sup>33</sup> Steering Committee recommendations.

<sup>34</sup> National Wildlife Federation, et al. v. Babbitt, 128 F. Supp. 2d 1293-95 (E.D.Cal. 2000)

funding sources such as allocations in future state or federal budgets, grants and future bond measures. HCPs also often fail to articulate specific funding goals and objectives.

It is essential that all funding needs be clearly and specifically identified in MSCP documents so that the amount of funding necessary to carry out program goals and objectives may be assured.

1. Preferred funding vs. assured funding – Some favored, yet un-assured financial resources such as federal appropriations or grants may become valuable sources of MSCP income and need not be secured prior to program approval. But backup, assured funding mechanisms should be identified at the time of program approval in the event of failure of the favored, yet un-assured funding.

For example, the County may wish to seek voter approval of one or more open space bonds over the life of the program. But an open space bond can only be considered an assured funding source if approved prior to approval of the MSCP, or if future take authorization is only granted at future program milestones with passage of future bonds. MSCP documents should therefore contain a commitment that the County will dedicate general funds, increase mitigation fees, or implement other measures to generate assured funding in the event of failure of a bond, as a condition of the take permit and assurances. In the absence of alternatives, the County would face denial of future incremental take authorization and assurances in the event of failure of the bonds or other favored funding in the absence of an assured, though possibly less-favored alternative.

2. Timing of funding – More funding will be necessary in the first few years of MSCP implementation under the up-front acquisitions method, whereas a greater total of program funding may be necessary under the milestones method. Mechanisms to generate funding for implementation of the milestones method need not all be established and providing revenue prior to program approval, but the County will be held liable for all acquisitions and other commitments under each milestone segment once any contemplated take has occurred under that milestone segment.

Permanent impacts to biological resources covered by the MSCP necessitate permanent protective management and monitoring of conserved land. Permanent assured funding will therefore be necessary for protective management and monitoring and associated administration.

All funding timing should be identified as conditions of the take permit and assurances.

3. Contingency funding – Two contingency funds will be necessary to successfully implement MSCP goals and objectives and to secure No Surprises assurances. The first fund should be used for purchase of properties where the consolidated and improved land use code has removed all economically viable use. The second fund should be used to provide a management response to changed or unforeseen circumstances such as necessary protective

management adjustments, purchases to secure additional conserved land, and other activities.

No Surprises assurances are now granted as a matter of routine for all new HCPs. These assurances greatly limit the permittee and beneficiaries' liability for commitments of additional land, water, or funding, or future restrictions on use of land or water after approval of an HCP, in violation of the ESA. HCPs rarely provide similar stringent, legal assurances for planned conservation activities.

As long as No Surprises assurances continue to be granted, HCPs must always provide assured contingency funding and management planning (e.g. additional land preservation) for all changed circumstances. According to the Habitat Conservation Plan Assurances (No Surprises) Rule,

Many changes in circumstances during the course of an HCP can reasonably be anticipated and planned for in the conservation plan ... and the plans should describe the modifications in the project or activity that will be implemented if these circumstances arise.

63 Fed. Reg. at 8868. Further, according to the five-point policy,

The No Surprises assurances encourage contingency planning. Changes in circumstances that can be reasonably anticipated during the implementation of an HCP can be planned for in the HCP. ...Precisely because nature is so dynamic, planning for changed circumstances and adopting adaptive management strategies within the HCP, permit, or [implementing agreement], if used, will better serve both the needs of the permittees and endangered species conservation.

Emphasis added, *Id.* at 35243.

Assured contingency funding must also be provided for unforeseen circumstances. Permit applicants must be extremely diligent and anticipate and include as many possible changed circumstances scenarios in the HCP, as well as the anticipated costs, management planning, and conservation commitments necessary to address these circumstances.

#### **F. Periodic Independent Review of Documents and Implementation**

Independent review of MSCP documents and implementation should be provided to ensure sound science, legal compliance, maintenance of program transparency and public trust, and to improve the likelihood that program goals and objectives will be fully achieved. Three levels of MSCP documents and implementation review and reporting should be provided as a condition of the take permit and assurances.

1. Preapproval independent scientific, legal, and financial review – MSCP documents should be subject to independent scientific, legal, and financial review prior to program approval. Documents that should be subject to this review include those addressing biological goals and objectives, reserve design,

protective management and monitoring, species-by-species coverage review, the draft biological opinion, and any financing plans among others.

2. Annual implementation review and staff report – An annual review and report should be provided to the public and decision makers on implementation of all MSCP components in relation to program goals, objectives, and benchmarks.
3. Periodic, independent implementation review and report – The MSCP should include a periodic, independent scientific, legal, and financial review, and a report to the public and decision makers examining implementation of all MSCP components, reviewing progress towards program goals, objectives and benchmarks, and providing recommendations for improvement. The independent review and report should be prepared at least once every 3 years.

#### **G. Duration of the MSCP**

The duration of the Section 10 permit should be 20 years, consistent with U.S. Environmental Protection Agency recommendations and principles described below:

- Program assurances should be provided over a long enough period of time to justify the work of preparing the MSCP.
- The program should be of long enough duration to provide a consistent conservation program through changing political climates. Protective management and monitoring of conserved land should occur in perpetuity, irrespective of the duration of the Section 10 permit.
- The program should be of short enough duration to reduce potential irreversible adverse impacts to habitats and species in the event of inaccurate growth projections, development rates, and species conservation assumptions.

## **II. Recommendations for the MSCP**

### **A. Recommendations to Pima County**

1. Include development permitting activities and County projects under the scope of the MSCP – The County should craft the MSCP and consolidated and improved land use code to address conservation of biological resources and Endangered Species Act compliance for all discretionary land development permitting activities, development service permits, County public works, capital improvement and other projects, and the activities of any other willing entities.
2. Craft MSCP to conserve 55 species – The MSCP should establish biological goals and objectives and include specific conservation activities for the 55 Priority Vulnerable Species identified by the Scientific Technical Advisory Team as conditions for the take permit and related assurances. The MSCP should provide conservation measures that actively contribute to the recovery of covered species, in addition to measures necessary to ensure survival.

3. Establish a 20 year duration for the MSCP – The duration of the MSCP and Section 10 permit should be 20 years in order to balance the duration of program assurances, energy expended preparing the program, and conservation, consistent with U.S. Environmental Protection Agency recommendations.
4. Adopt measurable conservation goals and objectives – The County should prepare biological goals and objectives as part of the MSCP in cooperation with other participating agencies, including the following examples:
  - Location and extent of conservation measures, including specific, targeted amounts of conserved land for each narrow endemic species, Special Elements, Critical Landscape Linkages, and others
  - Location and extent of new land acquisitions and other similar protections
  - Specific application of the consolidated and improved use code
  - Location and extent of protective management and monitoring
  - Extent and timing of funding
  - Specific circumstances under which un-avoidable impacts will be authorized as permitted activities proceed

Biological goals and objectives identified in the amended Priority Vulnerable Species document should be reviewed by the Scientific Technical Advisory Team and revised as necessary to meet these obligations. The revised goals and objectives should be made available for public review and comment as part of the total draft MSCP package, and subsequently finalized prior to approval of the program.

5. Establish benchmarks for MSCP implementation – The MSCP should include benchmarks for tracking program progress and ensuring that conservation will occur commensurate with take of covered species. Benchmarks for conservation of specific amounts of land for each narrow endemic species, Special Elements, conserved land, and provision of assured funding are particularly important. Take authorization should only be provided after completion of conservation activities identified in the previous benchmark increment.
6. Adopt the Conservation Lands System map – The Conservation Lands System map recommended by the Scientific Technical Advisory Team should be formally adopted as part of the MSCP and consolidated and improved land use code.
7. Estimate a total conserved land acreage obligation – The County should estimate the total acreage of conserved land necessary to achieve MSCP goals and objectives, and to conserve Priority Vulnerable Species and Special Elements, in

cooperation with the U.S. Fish and Wildlife Service. The total conserved land acreage obligation should be estimated according to the following formula:

$$\begin{aligned} & \text{[Total acreage of currently undeveloped land likely to be developed over the} \\ & \quad \text{life of the MSCP inside of Important Riparian Areas]} \\ & \quad + \\ & \text{[Total acreage of currently undeveloped land likely to be developed over the} \\ & \quad \text{life of the MSCP inside of Critical Landscape Linkages]} \\ & \quad + \\ & \text{[Total acreage of currently undeveloped land likely to be developed over the} \\ & \quad \text{life of the MSCP in the Biological Core Management Area multiplied by .8 - 4]} \\ & \quad + \\ & \text{[Total acreage of currently undeveloped land likely to be developed over the} \\ & \quad \text{life of the MSCP in the Special Species Management Area multiplied by .8 - 4]} \\ & \quad + \\ & \text{[Total acreage of currently undeveloped land likely to be developed over the} \\ & \quad \text{life of the MSCP in the Multiple Use Management Area multiplied by .75 - 3]} \\ & \quad + \\ & \text{[Total acreage of currently undeveloped land likely to be developed over the} \\ & \quad \text{life of the MSCP in Urbanizing Areas]} \\ & \quad + \\ & \text{[Total acreage of currently undeveloped land likely to be developed over the} \\ & \quad \text{life of the MSCP outside of the Conservation Lands System containing native} \\ & \quad \text{vegetation]} \end{aligned}$$

8. Acquire new County land – The County should act to acquire outright or otherwise protect a specific amount of the Conservation Lands System as a contribution towards the total MSCP conserved land acreage obligation.

Other similar methods of land protection include purchase of mitigation bank properties, and purchase of development, water, mineral and grazing rights.

Acquisition areas should be located within Habitat Protection Priority Areas and in the Biological Core Management Area.

The County should maximize use of the Arizona Preserve Initiative to acquire new County land. A significant portion of Habitat Protection Priority Areas identified by The Nature Conservancy and Arizona Open Land Trust are located in API eligible areas.

The milestones method should be utilized to carry out land acquisitions and other similar protections over the life of the MSCP. Some new land acquisitions should occur prior to County approval of the program. Specific amounts of acreage should be acquired in 3-year increments over the life of the MSCP. The 3-year acreage milestones should be included as a condition of the MSCP take permit and assurances. Take of covered species should be permitted only after completion of acquisitions identified in the previous increment.

Acquisition goals and objectives, and implementation activities should be included in the periodic, independent MSCP review, and improved as necessary to achieve program goals and objectives.

9. Establish a mitigation fee – A set fee should be established to provide an expedited mitigation alternative for property owners seeking to construct one single-family dwelling and accessory buildings for personal use.

The mitigation fee should be adequate to purchase and protectively manage elsewhere the same amount of land necessary to meet any mitigation obligations. The mitigation fee should be adjusted yearly.

Land acquired with the collected fees will be important to achieve the goal of commensurate conservation of Priority Vulnerable Species, Special Elements, and other MSCP resources. The following steps will be necessary to ensure that use of the mitigation fee will result in conservation commensurate with any impacts, among other goals:

- Fees should be collected prior to authorization of any development.
- Collected fees should be utilized to acquire land prior to, or concurrent with anticipated development.
- Collected fees should be utilized to acquire land within Habitat Protection Priority Areas and in the Biological Core Management Area.
- Collected fees should be utilized to acquire land containing the same narrow endemic species and Special Elements as those impacted by any development.
- The majority of collected fees for Pima pineapple cactus should be utilized to acquire land located in the same Comprehensive Plan Subregion (i.e. Northwest, Rincon Southeast / Santa Rita, etc.) as those impacted by any development.
- The majority of collected fees should be utilized to acquire land in the same Critical Landscape Linkages as those impacted by any development.
- The majority of collected fees should be utilized to acquire land in the same *Cactus ferruginus pygmy-owl Recovery Area*<sup>35</sup> or *Cactus*

---

<sup>35</sup> “Cactus ferruginus pygmy-owl Recovery Area” is that area identified by the U.S. Fish and Wildlife Service in the Cactus Ferruginous Pygmy-owl Recovery Plan.

*ferruginous pygmy-owl Special Management Area*<sup>36</sup> as those impacted by any development.

- The majority of collected fees should be utilized to acquire land inside the same narrow endemic species Priority Conservation Areas 1 and 2 as those impacted by any development.
- Collected fees should be utilized to acquire land free of all significant harmful land use practices that impair mitigation values, including grazing and off-highway vehicle use.

10. Establish mitigation banks – Mitigation banks should be established by the County to benefit property owners and others, and accomplish a number of MSCP goals and objectives.

The following steps will be necessary to ensure that mitigation banks benefit property owners and others, accomplish biological goals and objectives, and ensure conservation commensurate with impacts to MSCP resources:

- A mitigation banking accounting system should be established where 1 mitigation bank credit equals 1 acre. The number of necessary mitigation bank credits should be calculated according to the amount of impacted acres of native vegetation where any impacts of less than 1 full acre are rounded up to one full acre.
- Mitigation banks should be located within Habitat Protection Priority Areas and in the Biological Core Management Area.
- Mitigation banks should be acquired prior to, or concurrent with anticipated development.
- Mitigation banks should contain the same narrow endemic species and Special Elements as those impacted by any development utilizing the bank.
- Mitigation banks for Pima pineapple cactus should be located in the same Pima County Comprehensive Plan Subregion (i.e. Northwest, Rincon Southeast / Santa Rita, etc.) as the majority of any development utilizing the bank.
- Mitigation banks should be located in the same Critical Landscape Linkages as the majority of any development utilizing the bank.

---

<sup>36</sup> “Cactus ferruginous pygmy-owl Special Management Area” is that area identified by the U.S. Fish and Wildlife Service in the Cactus Ferruginous pygmy-owl Recovery Plan.

- Mitigation banks should be located inside the same Cactus ferruginous pygmy-owl Recovery Area or Special Management Area as the majority of any development utilizing the bank.
- Mitigation banks should be located inside the same narrow endemic species Priority Conservation Area as the majority of any development utilizing the bank.
- Mitigation banks should be free of all significant harmful land use practices that impair mitigation values, including grazing and off-highway vehicle use.

11. Consolidate and improve the land use code to implement the MSCP – The County land use code should be consolidated and improved to implement MSCP goals and objectives.

The County should also adopt Environmentally-Sensitive Roadway Design Guidelines and incorporate these in the Roadway Design Manual and code for both capital improvement projects and new development.

The consolidated and improved land use code should be prepared prior to County approval of the MSCP and distributed for public review and comment as a part of the total draft MSCP package. A draft of the land use code, and subsequent implementation of the code, should be included in the periodic, independent MSCP review, and improved as necessary to achieve program goals and objectives.

The consolidated and improved code should apply to all discretionary development permitting activities and County public works and capital improvement projects, and should become a primary mechanism to implement MSCP measures to minimize and mitigate the effects of development on biological resources. The code should provide the following conservation measures:

- Higher level of project site analysis for properties inside of the Conservation Lands System
- Lower level of project site analysis for properties outside of the Conservation Lands System
- Avoidance to the maximum extent practicable of narrow endemic species and others of the rarest biological resources
- Higher levels of in-kind mitigation for development impacts inside of the Conservation Lands System
- Lower levels of in-kind mitigation for development impacts outside of the Conservation Lands System
- Permanent protection of mitigation land as conserved land
- Protective management and monitoring

The code should also benefit property owners and others by simplifying, consolidating, and improving existing regulations, and provide various compliance options to improve regulatory flexibility. The code should include

measures to minimize expense and to streamline decision making for property owners generally, with assurances that an individual property owner may construct one single family dwelling.

12. Establish Conservation Lands System overlay zone(s) – A Conservation Lands System overlay zone(s) should be established to implement the MSCP and guide application of the consolidated and improved land use code.
13. Market mitigation bank credits – Mitigation bank credits should be marketed as an expedited mitigation alternative under the consolidated and improved land use code.

The following steps will be necessary to ensure that the use of mitigation bank credits will benefit property owners and others, accomplish biological goals and objectives, and ensure conservation commensurate with impacts to MSCP resources:

- Mitigation bank credits should only be authorized if obtained prior to authorization of any development.
- Mitigation bank credits should only be authorized for mitigation banks existing at the time of authorization of any development.
- Mitigation bank credits should only be authorized for mitigation banks located within Habitat Protection Priority Areas and in the Biological Core Management Area, with few exceptions.
- Mitigation bank credits should only be authorized when they contain the same narrow endemic species and Special Elements as those impacted by any development.
- Mitigation bank credits for impacts to Pima pineapple cactus should only be authorized in the same Pima County Comprehensive Plan Subregion (i.e. Northwest, Rincon Southeast / Santa Rita, etc.) as any development.
- Mitigation bank credits for impacts to Critical Landscape linkages should only be authorized in the same Critical Landscape Linkage as any development.
- Mitigation bank credits for impacts to the Cactus ferruginous pygmy-owl should only be authorized in the same Recovery Area or Special Management Area as any development.
- Mitigation bank credits for impacts to narrow endemic species should only be authorized in the those species' Priority Conservation Areas 1 and 2.
- Mitigation bank credits should only be authorized when they are free of all significant harmful land use practices that impair mitigation values, including grazing and off-highway vehicle use.

14. Provide site analysis assistance and support – The consolidated and improved land use code should emphasize the importance of site analysis prior to development.

The County should provide site analysis assistance to development permit applicants by facilitating impartial and transparent biological resource consulting services. The County should maintain a revolving list and hire qualified biological consultants in good standing to conduct necessary site analyses at the expense of development permit applicants.

In the alternative, the County should provide assistance by providing County staff to conduct site analysis at the expense of development permit applicants.

The County should also assist with site analysis obligations by preparing and maintaining baseline biological resources information in the form of detailed maps identifying:

- Type, location, and extent of native vegetation for all of eastern Pima County
- Type, location and extent of Major Washes, Perennial Streams, Intermittent Streams, 100-year flood plains, Springs, and wetlands
- Type, location, and extent of *Known Locations*<sup>37</sup> of Priority Vulnerable Species
- Type, location, and extent of narrow endemic species Priority Conservation Areas 1 and 2
- Type, location and extent of known locations of talus slopes, caves, adits, and limestone outcrops Special Elements
- The location and extent of any designated open space

15. Review and adopt federal endangered species conservation guidance – The Scientific Technical Advisory Team should review U.S. Fish and Wildlife Service conservation guidance documents for federally-listed Priority Vulnerable Species and provide recommendations to the County concerning incorporation of the substance of these documents into the MSCP, consolidated and improved land use code, and other documents.

---

<sup>37</sup> “Known Locations” are those areas identified as Known Locations for Priority Vulnerable Species in the amended Priority Vulnerable Species document, areas known to be occupied by such species according to wildlife agencies and authorities, and any such areas identified in the future including those identified through project site analyses.

The U.S. Fish and Wildlife Service has prepared a number of detailed, science-based conservation guidance documents for federally-listed Priority Vulnerable Species such as the Southwestern willow flycatcher, desert fishes, Cactus ferruginous pygmy-owl, and others. For example, the pygmy-owl recovery plan may provide guidance on the location of mitigation land inside pygmy-owl Special Management Areas, and a joint Service and Army Corps of Engineers document may provide guidance on determining whether a project “may affect” the pygmy-owl.

16. Prepare protective management and monitoring plans – The County should prepare a framework management and monitoring plan, and ensure preparation of area-specific protective management and monitoring plans to implement MSCP goals and objectives. Adaptive management should be included as one component of the plans.

The plans should provide extensive detail on the following topics and others:

- Management agency
- Fire management, including emergency response and prescribed fire
- Fencing
- Minimization of edge effects, including exotic species control, lighting, noise, trashing dumping and others
- Restoration
- Seed banking
- Authorized uses
- Limits on harmful land use practices
- Public access points
- Staff duties
- Education, including signing and neighborhood and school programs
- Monitoring of Priority Vulnerable Species populations and vegetation communities
- Management adjustments in response to monitoring

The County should prepare the framework protective management and monitoring plan prior to County approval of the program, and distribute the plan for public review and comment as a part of the total draft MSCP package.

Area-specific protective management and monitoring plans for land conserved in the future should be prepared by property owners or others in cooperation with the County concurrent with land development, set-asides, and mitigation acquisitions. Future development inside the CLS should not be authorized without area-specific management and monitoring plans for set-aside land, a land manager, and arrangements for permanent management and monitoring.

All protective management and monitoring plans should be reopened for public and agency review, comment and possible revisions at least once every 3 years.

17. Establish a Sonoran Desert Conservancy – The County should cooperate with other agencies to establish a publicly-accessible, independent, and non-profit

Sonoran Desert Conservancy to receive conserved land and implement area-specific protective management and monitoring plans.

18. Limit harmful land use practices – Conserved land should be protected from land use practices deemed inconsistent with MSCP goals and objectives and harmful to Priority Vulnerable Species, Special Elements, and other MSCP resources, including grazing and off-road vehicle use. Measures to reduce harmful land use practices should be included in the framework and area-specific protective management and monitoring plans.
19. Provide assured funding – Assured funding mechanisms should be established by the County for a number of MSCP elements. These mechanisms should include a combination of the following:
  - Open space bond(s)
  - Mitigation and management fees
  - Dedicated general funds
  - Reallocated current property taxes
  - Community park maintenance district(s)

Some funding mechanisms should be established and generating revenue prior to approval of the MSCP. The adequacy of selected funding mechanisms should be reviewed as part of the 3-year, independent MSCP review, and improved as necessary to achieve program goals and objectives. The County should establish a formal policy at the time of program approval to provide yearly budgets necessary to carry out MSCP goals and objectives.

20. Establish contingency funds – The County should establish two MSCP contingency funds. The first fund should be used for the purchase of properties in those rare situations where the consolidated and improved land use code has removed all constitutionally protected property use. Purchase offers with this fund should constitute an economically viable property use, thereby avoiding any possible taking of private property.

The second fund should be used to provide a management response to changed or unforeseen circumstances such as necessary protective management adjustments, purchases to secure additional conserved land, and other activities.

21. Expand the general fund open-space acquisition line items – The County should expand the open space and flood prone land budget line items to assure funding for MSCP acquisitions and protective management.
22. Pursue federal appropriations and grants – The County should actively pursue federal appropriations and grants to fund MSCP implementation.
23. Provide for periodic, independent review of MSCP – The County should provide three levels of review and reporting on MSCP documents and implementation in cooperation with other participating agencies, including the following:

- Preapproval independent scientific, legal, and financial review
- Annual implementation review and staff report
- 3-year independent implementation scientific, legal, and financial review and report

24. Protect private property rights – Constitutional private property rights should be protected during implementation of the MSCP, consistent with Steering Committee recommendations.
25. Provide conservation incentives – Conservation incentives should be provided to private property owners, consistent with Steering Committee recommendations.

#### **B. Recommendations to the U.S. Fish and Wildlife Service**

1. Acquire new federal land – Federal agencies should contribute to conservation of Priority Vulnerable Species, Special Elements, and other MSCP resources and enhance configuration of conserved land by acquiring an additional specific amount of conserved land over the life of the MSCP.
2. Limit harmful land use practices – Federal agencies should act to protect conserved land from land use practices deemed inconsistent with MSCP goals and objectives and harmful to Priority Vulnerable Species and their habitats.
3. Improve protective management – Federal agencies should participate in collaborative management to initiate or adjust activities on federal land for protective management of MSCP resources and to carry out other MSCP goals and objectives, consistent with protective management and monitoring plans.
4. Monitor biological resources – Federal agencies should participate in collaborative monitoring of MSCP resources, consistent with protective management and monitoring plans.
5. Support periodic, independent MSCP review – Federal agencies should provide funding and other support for the periodic, independent review of the MSCP in cooperation with other agency participants.
6. Oversee MSCP compliance – The U.S. Fish and Wildlife Service should continuously review County compliance with MSCP commitments. The Service should specifically budget and dedicate staff time for this review.

#### **C. Recommendations to the Arizona State Land Department**

1. Expedite consideration of API applications – The Arizona State Land Department should support Pima County’s regional habitat conservation planning effort by expediting consideration of the County’s Arizona Preserve Initiative applications for state land located inside the Conservation Lands System.

###

DRAFT