

The Coalition for Sonoran Desert Protection offers the following specific comments on Pima County's Draft Multiple Species Conservation Plan, released January 15, 2004. Sections are referenced within the text of the comments. Footnotes are also provided, where appropriate.

Clarify anticipated extent of habitat loss and conservation / mitigation for the unincorporated County

Estimated habitat loss figures for land under the legal authority of the Board of Supervisors (i.e. "unincorporated County") should be clarified to better illustrate likely impacts and necessary mitigation. Apparent inconsistencies and/or errors should also be corrected or addressed. Clarification of CLS conservation goals and the extent of anticipated development specific to unincorporated Pima County would improve public understanding of likely PCMSCP benefits and possible harm.

The plan area for which a take permit is being sought "includes only the lands under the legal authority of the Board of Supervisors," according to section 2.1.2 of the draft PCMSCP. Yet subsequent data on the likely extent of "land disturbance activities" over the life of the take permit may include development activities on a significant amount of land outside the legal authority of the Board. This reduces the ability of the reviewer to determine the anticipated extent of habitat losses in the unincorporated County, or determine the basis for anticipated mitigation obligations in support of a take permit for just the unincorporated County.

For example, figures in Table 2.9 identify "Lands Potentially Subject to Direct and Indirect Effects: Projected Future Development." Yet these do not appear to identify possible development impacts specific to the confines of the unincorporated County. The term "outside the built environment" has traditionally been utilized to identify lands outside [the existing water and wastewater service areas], and this may include both incorporated and unincorporated lands. Other figures identifying "the projected amount of new development within the PCMSCP Plan Area" in paragraph 6 of section 2.5.1, and identifying a maximum additional area of development in paragraph 1 of section 4.4.4.2. appear similarly constrained. Some of these figures may in fact identify the amount of land likely to be developed just in the unincorporated County, but this is not clear.

Federal laws governing preparation of the PCMSCP require disclosure of all impacts authorized under the plan even while mitigation may be limited to areas within the CLS. Yet it is also possible that a lack of clarity in the text of the draft PCMSCP may stem from a possible misperception that analysis of impacts and mitigation are only necessary for land inside the

Biologically Preferred Reserve / CLS, as suggested by discussion in paragraph 7 of section 2.5.1., and at Table 4.2.

This issue may be simply resolved by providing a table similar to 2.8 but which specifies the amount of anticipated development in the unincorporated County over the life of the take permit in each category of the Conservation Lands System as well as outside of the CLS. A presentation of corresponding mitigation obligations calculated according to constraints under the CLS should also be included. 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 PCMSCP conserved land.¹ 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 PCMSCP 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 PCMSCP. 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 covered species, water quality protection and other values. Impacts to Important Riparian Areas should therefore be avoided. Unavoidable impacts should not exceed 5% of the total amount of Important Riparian Areas on any property, and unavoidable impacts should be mitigated.
- 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 mitigation should be provided for any impacts to the 20% allowable development area.²
- Impacts to land in each Conservation Lands System category should be mitigated consistent with Comprehensive Land Use 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

¹ “Conserved land” is land acquired, mitigated or set-aside through dedication as permanent natural open space, and provided with a permanent management endowment, permanent land manager, and permanent area-specific management and monitoring.

² The “Allowable development area” is that portion of any property within the Conservation Lands System where development is permitted according to applicable Conservation Lands System overlay zone(s).

ratio of 4:1, either on or off-site of the impacted property. Similarly, impacts to *Multiple Use Management Areas* should be mitigated at a ratio of 3:1.

- Impacts to land outside of the Conservation Lands System containing native vegetation should also be mitigated to generate acquisition of conserved land inside of the CLS.

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

<u>[Total acreage of currently undeveloped land likely to be developed over the life of the PCMSCP inside of Important Riparian Areas]</u>
+
<u>[Total acreage of currently undeveloped land likely to be developed over the life of the PCMSCP inside of Critical Landscape Linkages]</u>
+
<u>[Total acreage of currently undeveloped land likely to be developed over the life of the PCMSCP in the Biological Core Management Area multiplied by .8 - 4]</u>
+
<u>[Total acreage of currently undeveloped land likely to be developed over the life of the PCMSCP in the Threatened and Endangered Species Management Area multiplied by .8 - 4]</u>
+
<u>[Total acreage of currently undeveloped land likely to be developed over the life of the PCMSCP in the Multiple Use Management Area multiplied by .75 - 3]</u>
+
<u>[Total acreage of currently undeveloped land likely to be developed over the life of the PCMSCP in Urbanizing Areas]</u>
+
<u>[Total acreage of currently undeveloped land likely to be developed over the life of the PCMSCP outside of the Conservation Lands System containing native vegetation]</u>

Figures in the PCMSCP addressing anticipated development and/or land disturbance activities also appear inconsistent in several circumstances. For example, section 2.3.2 figures addressing the anticipated extent of land disturbance activities in years 21 through build out, and for total anticipated CLS development appear inconsistent with those in Table 2.9.

Clarify anticipated extent of take and conservation of narrow endemic species

Figures estimating habitat loss, take, and conservation of narrow endemic species covered by the plan should be clarified to better illustrate likely impacts and necessary mitigation. Apparent inconsistencies should also be addressed.

One method of calculating possible take of narrow endemic species should involve analysis of the extent of take of “known locations,”³ as well as anticipated take of narrow endemic species Priority Conservation areas.

Narrow endemic species covered under the PCMSCP will require greater and more specific protective measures than others. These species should be provided more rigorous goals and objectives to ensure that the PCMSCP lives up to Endangered Species Act legal requirements.

Landscape scale habitat conservation is not likely to adequately conserve the rarest resources as suggested in the PCMSCP. According to text at bullet 2 in section 3.3 of the plan,

Minimization of take will be achieved on a landscape-scale by implementing the ecosystem-based CLS... ...[CLS] mitigation levels will mitigate the impacts of incidental take to the maximum extent practicable.

Landscape scale habitat conservation may in fact adequately minimize take of relatively common sensitive habitats and wider-ranging sensitive species. But landscape scale habitat conservation alone will not make a successful PCMSCP for narrow endemic species. According to the U.S. Fish and Wildlife Service’ habitat conservation plan “five-point policy,”⁴

...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.

³ “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.

⁴ 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.

Table 2.14 identifies “Potential Loss of High and Medium Potential Habitat within the PCMSCP Plan Area.” Anticipated habitat losses here appear too high to meet PCMSCP conservation goals or support take permits and assurances for the following species:

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
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The PCMSCP subsequently states a goal to “minimize impacts to narrow endemic species and avoid impacts to [Priority Conservation Areas] for these species,” according to section 3.1.2.3. Clarification should be provided on the extent to which application of this goal may reduce habitat losses identified in Table 2.14. An analysis should also be provided showing the anticipated extent of habitat loss inside each species’ Priority Conservation Areas.

Expand conservation of narrow endemic species, Critical Landscape Connections, Important Riparian Areas, and the rarest Special Elements

The PCMSCP should be revised to expand conservation of the rarest resources addressed under the plan – narrow endemic species, Critical Landscape Connections, Important Riparian Areas, and the rarest Special Elements. These are species, habitats, and significant ecological features which might otherwise slip through the cracks of the landscape scale habitat conservation strategy now emphasized by the plan. Expanded discussion of measures to conserve the rarest resources should alleviate concerns over excessive loss of the rarest resources while providing greater certainty to property owners.

Application of a standard of avoidance may be the most effective means to conserve these rarest PCMSCP resources. Under an avoidance standard, unavoidable impacts to the rarest resources should only be permitted if necessary to provide for essential public health and safety

projects,⁵ one single-family dwelling or other minimum constitutional property use,⁶ or a biologically superior alternative.⁷ Site analysis should be required to determine the presence of these resources, and mitigation required for any unavoidable impacts.

Expanded conservation of the rarest resources addressed under the PCMSCP is necessary for many practical reasons, and because additional conservation of these resources will likely be necessary to secure a federal take permit. Landscape level habitat conservation is a legitimate strategy, but it may not adequately protect narrow endemic species. Habitat inside Critical Landscape Connections plays a vital role for PCMSCP covered species and many others. Important Riparian Areas and some Special Elements provide a seemingly disproportionate amount of essential habitat for covered species. Important Riparian Areas also provide flood control values, recreational values, and a myriad of others. Several other Special Elements like talus slopes, caves, adits, and limestone outcrops are also exceedingly rare and unique to Pima County and southern Arizona.

Provide additional details on elements and assembly of the Biologically Preferred Reserve / Conservation Lands System

Conserved land⁸ and the Conservation Land System should serve central roles in implementing PCMSCP goals and objectives. The Conservation Lands System should serve as a guide to protect covered 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.

PCMSCP Conservation Land System protection goals are a very significant first step towards achieving plan goals. Several additional details are necessary however to illustrate the various potential elements and assembly of the CLS.

1. Elements of the Conservation Lands System – A Conservation Lands System map recommended by the Scientific Technical Advisory Team and adopted as part of the Comprehensive Land Use Plan should be adopted as part of the PCMSCP because this

⁵ “Essential public health and safety projects” are those public infrastructure projects necessary to provide for the health and safety of current Pima County residents, and that will service the overall community and not just a single property.

⁶ “Minimum constitutional property use” is the minimum development project necessary to provide constitutionally protected use of a particular property.

⁷ “Biologically superior alternative projects” are those development projects that will achieve a superior biological result which provides a clear net increase in habitat conservation and/or population viability for the impacted sensitive biological resource.

⁸ “Conserved land” is that 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.

represents the best available scientific information on the general location of high conservation value land in Pima County.⁹ The CLS should ultimately encompass the following general elements:¹⁰

- Acquisition areas, including new land acquisitions and other similar protections
- Regulated areas, including Conservation Lands System set-aside land¹¹ 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, and purchase of development, water, mineral and grazing rights and accompanying conservation easements.

- 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 PCMSCP should use voluntary incentives to the extent possible in both planning decisions and in the implementation of the Conservation Lands System.¹² 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.

⁹ Steering Committee recommendations.

¹⁰ Steering Committee recommendations.

¹¹ “Set-aside land” is the area on any property within the Conservation Lands System outside of the allowable development area.

¹² 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.
2. Location of conserved land – Acquisition areas and mitigation banks should be located within Habitat Protection Priority areas in the Habitat Protection Priorities map,¹³ and in the Biological Core Management Area.¹⁴

Expand discussion of the “Mitigation Program and Standards” consistent with a new, consolidated, and improved land use code to implement the PCMSCP

Additional details for the Mitigation Program and Standards presented in section 3 should be included in the PCMSCP to effectively conserve covered species and to support take authorization. The Mitigation Program and Standards element of the PCMSCP should ultimately serve as a summary of details contained in new consolidated and improved land use code to implement the PCMSCP.

The Board of Supervisors made a significant commitment to conservation when they adopted the Conservation Lands System under the Comprehensive Land Use Plan. PCMSCP Mitigation Program and Standards serve as an essential first step in crafting the conservation details of the plan. Yet many more important details of this program are unreasonably deferred to future project environmental review processes according section 3.1.2.2. of the plan.

For example, 80% of Biological Core Management Areas must be conserved according to the Comprehensive Land Use Plan and PCMSCP. Sections 3.1.2.2. - 3.1.2.5 provide some guidelines for how development and conservation should be accomplished in the CLS. But some important details are missing, including those that might address the specifics of site analysis, avoidance / minimization of impacts to the rarest resources, mitigation methods, and protective management and monitoring.

The County should prepare a consolidated and improved land use code for the PCMSCP to provide these essential details – an Environmentally Sensitive Resources Ordinance. The consolidated and improved land use code should provide property owners and County departments flexibility in meeting regulatory obligations to achieve PCMSCP goals and objectives.

The consolidated and improved land use code should be prepared prior to County approval of the PCMSCP and distributed for public review and comment as a part of the total

¹³ Adopted by the Steering Committee.

¹⁴ Steering Committee recommendations.

draft PCMSCP package.¹⁵ A review of the revised code should also be included in the periodic, independent PCMSCP review, and improved as necessary to achieve program goals and objectives.

A Conservation Lands System overlay zone(s) should be established to implement the PCMSCP and guide application of the consolidated and improved land use code.

The Mitigation Program and Standards and revised 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 PCMSCP 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 of narrow endemic species and others of the rarest biological resources
- Higher levels of in-kind mitigation¹⁶ 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

¹⁵ Steering Committee recommendations.

¹⁶ “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.

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.

Three important elements to achieve these goals are site analysis support, mitigation fees, and mitigation bank credits.

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 of covered 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

Mitigation banking will assist the County in accomplishing a number of important program goals benefiting 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 into

these areas, and ensure conservation commensurate with impacts PCMSCP 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.

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.
- 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 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 Watershed Subunit in Figure 2.5 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 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 set mitigation fee should also 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 narrow endemic species, Special Elements, and other PCMSCP 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 Land Use 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 ferruginous pygmy-owl Recovery Area¹⁷ or Cactus ferruginous pygmy-owl Special Management Area¹⁸ as those impacted by any development.

¹⁷ The “Cactus ferruginous pygmy-owl Recovery Area” is identified by the U.S. Fish and Wildlife Service in the Cactus Ferruginous Pygmy-owl Recovery Plan.

¹⁸ The “Cactus ferruginous pygmy-owl Special Management Area” is identified by the U.S. Fish and Wildlife Service in the Cactus Ferruginous pygmy-owl Recovery Plan.

- 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.

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 Coalition is committed to working closely with the County and the PCMSCP Implementation Committee to incorporate consolidated and improved land use code details into the next draft of the plan.

Expand conservation measures outside of the Conservation Lands System

The scope of the PCMSCP should be expanded to address conservation of biological resources throughout the unincorporated County, including land both inside and outside of the Conservation Lands System. Conservation measures should be most rigorous inside of the CLS. But measures are also necessary outside of the CLS to protect the rarest resources, protect and restore connectivity of conserved land, generate additional conserved land inside the CLS, and to support take authorization.

For example, several of the rarest Special Elements and dependent species are not likely to be adequately conserved entirely within the CLS – talus slopes, caves, adits, and limestone outcrops. These resources should be avoided inside and outside of the CLS, as discussed above.

Also, the burden of funding the PCMSCP 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 PCMSCP open space, and taxpayers nationwide who support federal endangered species protection.¹⁹ Property owners impacting native habitats outside the CLS obviously and significantly benefit from take authorization under the PCMSCP. They should therefore also directly contribute to assembly of conserved land, albeit at lower levels than property owners inside the CLS, based on this Steering Committee agreement.

Prepare protective management and monitoring plans

¹⁹ 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.”

Protective management and monitoring is necessary to carry out PCMSCP 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 PCMSCP – an overarching framework protective management and monitoring plan, and many area-specific management plans.

The County makes an important commitment to preparation of a presumably programmatic, county-wide adaptive management program and comprehensive monitoring program in section 4.5.2.2. This commitment appears consistent with the Coalition’s recommended framework management and monitoring plan. Yet preparation of a framework management and monitoring plan should occur prior to approval of the PCMSCP to provide important conservation details and a basis for take authorization. We are dedicated to working with the County to prepare the framework protective management and monitoring plan as soon as possible, and to distribute the plan for public review and comment as a part of the total draft PCMSCP package.

Several PCMSCP sections appear to address protective, adaptive management and monitoring of conserved land and covered species, including sections 4.1.4., 4.4.3., 4.5.2.2., and 4.5.2.3. Yet it remains unclear how the County will provide for area-specific protective management of land conserved over the life of the PCMSCP. Section 4.1.4. suggests that management plans will be prepared for all conservation reserve areas. Yet the meaning of this term is unclear, and this and other sections do not appear to address permanent protective management of private conserved land – areas that may form a significant portion land conserved over the life of the permit.

Preparation of 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 covered species, measures to identify necessary management adjustments, and others.²⁰

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

Both the framework management and monitoring plan and future area-specific

²⁰ Steering Committee recommendations.

management plans should address 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, trash 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 covered species populations and vegetation communities
- Management adjustments in response to monitoring

The restoration element of management and monitoring plans deserves special emphasis, especially for Important Riparian Areas and Critical Landscape Connections. These are the areas that connect the Conservation Lands System, and restoration of degraded areas will become essential to the integrity of CLS and goals of the PCMSCP.

These topics should be addressed programmatically in the framework plan according to watershed subunits identified in Figure 2.5 of the PCMSCP. Future area-specific plans should address these topics in much greater detail according to site-specific conditions.

Protective management and monitoring plans are an essential component of the PCMSCP, 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 covered species. Monitoring also is a mandatory element of all HCP's (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 PCMSCP's protective management program.

The protective management and monitoring plan should also include an adaptive management component.²¹

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

A framework protective management and monitoring plan should provide a detailed overview of measures necessary to manage all conserved land under the PCMSCP. Area-specific protective management and monitoring plans should provide details on protective management of any conserved land credited towards mitigation obligations, as well as any 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 PCMSCP 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 covered species, Special Elements, and other PCMSCP 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.

Clarify the relationship between temporal mitigation priorities and duration of the take permit

The PCMSCP should clarify the extent to which temporal mitigation priorities in section 4.4.4.2. correspond to the duration of the anticipated take permit. It remains unclear whether the County will seek several take permits at years 1, 11, and 21, or whether it will seek one permit applicable through build out of the unincorporated County.

²¹ Steering Committee recommendations.

It is the Coalition's position that the duration of the take permit should not exceed 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 PCMSCP.
- 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.

This is not to say that the overall duration of the PCMSCP is flawed. A revised plan consistent with Coalition comments should apply through build-out of the unincorporated County. And a new take permit could be authorized at year 21 assuming smooth operation of the PCMSCP, consistent with the approved plan.

The Coalition also supports Steering Committee recommendations on implementation benchmarks:

“The Steering Committee recognizes that the successful implementation of the [PCMSCP] 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.”

Additional details should therefore be provided in the temporal mitigation priorities section 4.4.4.2. that specify the extent of anticipated mitigation land protection in 5-year increments. Anticipated 5-year mitigation increments should be included as conditions of the take permit and assurances. Additional details should also be provided here specifying the amount of anticipated required mitigation land, calculated according to both constraints under each CLS category (e.g. 80% conservation of Biological Core Management Areas, etc.), as well as anticipated development, as discussed above.

Specify the amount of necessary assured funding to achieve PSPCMSCP goals and commitments

The PCMSCP should specify the estimated cost of carrying out each element of the plan. Funding needs should be clearly and specifically identified so that the amount of funding necessary to carry out program goals and objectives may be assured.

Some favored, yet un-assured financial resources such as federal appropriations or grants may become valuable sources of PCMSCP 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 PCMSCP, or if future take authorization is only granted after passage of future bonds. The PCMSCP appears to specify several possible alternative funding sources – general funds, mitigation fees, sales tax, and others. But the plan must also identify the amount that must be raised from these sources to achieve PCMSCP goals and commitments as a condition of the take permit and assurances.

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

Provide contingency funding and management planning in support of “no surprises” assurances

The PCMSCP should provide assured contingency funding and management planning (e.g. additional land preservation) for changed and unforeseen circumstances to ensure full minimization and mitigation of all impacts from permitted activities, and that permitted activities will not appreciably reduce the likelihood of survival and recovery of covered species. According to the Secretary’s 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.

Federal Register 63 at page 8868. Further, according to the Secretary’s 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 changes

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.

Federal Register 65 at page 35243.

The County may not lawfully impose on the federal government its own obligation to comply with section 10 of the Endangered Species Act by responding appropriately to unforeseen circumstances. Assured contingency funding and planning are important tools for responding to unforeseen circumstances which might otherwise jeopardize both covered species and the County's take authorization. Provision of contingency funding and planning provides the County with desired assurances while still complying with the plain intent of the ESA.