

Introduction

The Town of Marana has a unique opportunity to provide example by leadership to other similar communities struggling with issues of rapid urban encroachment into habitat of endangered, threatened and vulnerable species. Comments provided here by the Coalition for Sonoran Desert Protection are intended to help guide the Town toward a successful Habitat Conservation Plan that will provide that leadership.

A successful conservation program for endangered, threatened and other vulnerable species must be based on sound biological science. This requires that science direct the political decisions about where and how to implement conservation measures.

The Endangered Species Act (ESA) contains a strong mandate that Habitat Conservation Plans (HCPs) must include all possible measures to minimize and mitigate take of species covered by the program to the maximum extent practicable.¹

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 must be preceded by earlier project-level steps to avoid and minimize harm to covered species. HCPs must also specifically articulate those limited circumstances under which unavoidable impacts will be authorized as permitted activities proceed.

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 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.

The Endangered Species Act also contains a strong mandate that HCPs must not appreciably reduce the likelihood of the survival and recovery of the covered species in the wild. 16 U.S.C. S1539(a)(2)(B)(iv). HCPs must also go one step further and provide a net benefit, or “conserve” covered species.

Congress titles ESA Section 10(a) “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 the covered species. HCPs must provide a net benefit to covered species, even if the planning area is just a portion of the species range.

¹ ¹ See 16 U.S.C. S 1539(a)(2)(B)(ii): “...the [HCP] applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking.”

Conservation Strategies for the Cactus Ferruginous Pygmy-owl

(Preserve, Augmentation, and BEROD)

General Comments

In the draft conservation strategies for the cactus ferruginous pygmy-owl (pygmy-owl), the Town recognizes that, given its imperiled status, any take² of the owl will not meet the HCP requirement that the Town's actions not appreciably reduce the likelihood of survival and recovery in the wild. Under the Town's "Preferred Alternative," the Town proposes to augment the population of owls in an expanded Tortolita Preserve in order to be able to take owls and still meet the permit conditions.

Any augmentation program must have almost total certainty of success under an HCP in order to allow the take of the few remaining known owls in Marana's planning area. Unfortunately, augmentation protocols for pygmy-owls have not been tested; therefore there is no guarantee of success. Adding to the program's uncertainty for providing a net benefit to the pygmy-owl is the strict definition for success that determines whether or not the Town is obligated to continue with the augmentation program. For rigid goals-some of which are contrary to the goals of overall recovery, such as not counting owls that disperse from the Preserve to be viewed as "successful" augmentation-to be set for the first 6 years of the program with the consequence of not meeting them to discontinue conservation efforts offers little assurance that the proposed augmentation program will result in a net benefit to the species.

In addition, the lack of ability to currently conserve State Trust Lands and the uncertainty of current proposals restrains the Town from implementing the expanded Preserve in a timeline that will provide conservation benefits before the remaining group of owls is extirpated from the northwest side. Therefore, we have serious concerns about whether conserving the State Trust Lands proposed for the Preserve expansion and augmentation program is even a possibility.

We must stress that, because augmentation of pygmy-owls is not a proven method and because there is currently no assured mechanism for conserving the State Trust Lands identified for the expanded Preserve, take of owls should not be permitted until recovery benchmarks have been achieved.

However, this does not mean that the Preserve expansion and augmentation program should not be included in Marana's HCP as conservation strategies for the pygmy-owl. HCPs must conserve covered species-that is, include all measures necessary to bring federally listed species to a point at which ESA protections are no longer necessary. Although augmentation is not a proven method, it has been recognized in the draft January 2003 Recovery Plan as a potential recovery strategy, and, as mentioned above, we concur that the pygmy-owl may indeed require augmentation to ensure long-term survival.

Marana's concepts for pygmy-owl conservation and the HCP are bold and ambitious. However, given the uncertainty in the factors on which the "Preferred Alternative" is founded, the conservation

² To "take" a species, as defined under Section 3(18) of the ESA, means to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct." In addition, "harm" includes "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavior patterns including breeding, feeding, or sheltering" (50 C.F.R. 17.3).

strategies proposed for Marana's HCP for the pygmy-owl, as currently written, do not minimize or mitigate impacts to the maximum extent practicable, they do not assure that a net benefit to the pygmy-owl will be achieved, and they do not assure that the likelihood of survival and recovery of the owl will not be appreciably reduced by current take.

The Coalition suggests that Marana pursue a combined approach that gives full protection to currently-occupied habitat through interim conservation measures and, ultimately, a revised BEROD, and which contributes to local recovery efforts through the expansion of the Tortolita Preserve that includes a pilot pygmy-owl augmentation program.

To this end, we have provided more detailed comments and recommendations below on pygmy-owl conservation measures proposed under the "Preferred Alternative": the proposed Tortolita Preserve Expansion, and the proposed augmentation program, and the proposed Bajada Environmental Resource Overlay District (BEROD).

Tortolita Preserve Expansion (Preserve)

As mentioned previously, the Coalition supports the concept of an expanded preserve for the pygmy-owl in order to provide land for an augmentation program as one strategy to be included in the conservation measures for the pygmy-owl under Marana's HCP. The first step of that approach is the conservation of lands that will expand the current Tortolita Preserve.

The lands identified for the expanded Preserve are State Trust Lands, and there are currently no established means by which State Trust Lands can be conserved. The Arizona Preserve Initiative is at a standstill due to legal questions as to its constitutionality. The only option for conserving State Trust Lands at present is to purchase them through auction from the State Land Department at full market value, if the Land Department chooses to sell them, or to negotiate a trade with another entity so that the State is compensated with other lands that can gain revenue for the State in the future.

The first option, of full-market-value purchase, has not been presented as a viable option by the Town. Town staff has mentioned the possibility of these lands being conserved through exchange with a private party and the BLM, through a State Trust Lands Reform proposal, and/or through legislation that would enable Marana's expansion of the Tortolita Preserve as a "pilot program," for conservation. While we encourage the Town to explore creative means to implement meaningful conservation measures, we have significant concerns about the likelihood that such mechanisms will materialize.

Specific to the proposed State Trust Land Reform effort, the benefit that the Town will see toward their HCP if it were implemented would be of limited value to Marana's overall conceptual plan. In the latest State Trust Lands Reform proposal, approximately one-third of the lands identified for the proposed Preserve expansion are not identified for protection, nor are they being held in conservation status through the Arizona Preserve Initiative process.

Under the terms of the reform proposal, then, conservation of those lands would be precluded for the next 25 years, except through the proposed Conceptual Planning Process which would require that a portion of State Trust Lands in the Marana Planning Area be developed in higher densities to provide higher value to allow the State Trust Lands Marana wishes to conserve to be purchased for an equally less-than-market value. Incorporating the Conceptual Planning Process adds another level of uncertainty to the process since 1) the Town has no assurances from the State that they will implement Marana's proposal, and 2) the State would still have the final authority if there were a

planning disputes regarding these lands - and, the Conceptual Planning Process, which is by far the most complex aspect-will most certainly take several years to put in place.

The Coalition recommends that the expanded Preserve be included as a conservation strategy for the pygmy-owl under the Town's HCP, with the following recommendations:

Recommendations:

1. Pursue options with the State Land Department to obtain certainty as to the Town's ownership of the State Trust Lands identified and proposed for the Preserve expansion.
2. In the interim, submit an Arizona Preserve Initiative application for all State Trust Lands Marana has identified for conservation.
3. Once certainty of ownership for the purposes of conservation in perpetuity has been established by the Town, ensure that the Preserve is kept free of all harmful land use practices.
4. Provide a "buffer zone" for adjacent lands through ordinance (i.e., BEROD).

Augmentation Program (*please see Tucson Audubon Society's comments for more detail*)

Augmentation is a last resort process initiated only when a population has demonstrated that it can no longer sustain itself in the wild and will go extinct without supplementation from an outside source. We concur with the opinion, based on contemporary pygmy-owl data and interviews with experts in the field of augmentation, that the Arizona pygmy-owl population is nearing, or has reached, that level.

Because of the potential for a successful augmentation program to significantly benefit the pygmy-owl, the Coalition recommends that the pursuit of such a program, with the following recommendations, be included as a conservation strategy in Marana's HCP. However, **we must stress that, because augmentation of pygmy-owls is not a proven method, take of owls should not be permitted until recovery benchmarks have been achieved.**

Recommendations

1. Develop an augmentation plan that, at a minimum, includes the following:
 - A review of past and present augmentation efforts, e.g. condor, thick-billed parrot, aplomado falcon, peregrine, bald eagle, etc.
 - The convening of augmentation experts to review the status of the pygmy-owl and provide input into the development of an augmentation plan.
 - A threats assessment to address new population stressors such as West Nile Virus and New Castle Disease.
 - Formation of a permanent augmentation committee to oversee/drive the augmentation process.
 - Initiation of a dialogue with Mexico on the possibility of importing pygmy-owls for a captive breeding program, as soon as possible.
 - Initiation of a habitat evaluation of the proposed Preserve with an emphasis on prey availability and predator density and distribution.

- Development of a detailed augmentation plan that addresses pygmy-owl captive breeding, release, and monitoring programs as well as the potential of bringing pygmy-owls from Mexico and the impacts of this to the Mexican population.
- A discussion about how Marana will provide long-term support for the augmentation program and how Marana intends to make a 30 year commitment to the augmentation strategy and/or the establishment of 64 new breeding pairs within the pygmy-owls historical range.
- A contingency strategy for the pygmy-owl if augmentation fails.

Bajada Environmental Resource Overlay District (BEROD)

The BEROD is, in concept, a very worthwhile tool. Implementing an overlay district that has regulations above and beyond what can occur in other parts of a municipality, due to the area's environmental sensitivity, has been successfully done in many jurisdictions, including locally. It can be used to meet the requirements of an HCP if it specifies both measures that will be required to avoid, minimize, and mitigate impacts to covered species and under what circumstances unavoidable impacts will occur.

The area for which the BEROD is proposed is entirely within a Special Management Area identified in the January 2003 draft Recovery Plan for the owl. In addition, the federal cactus ferruginous pygmy-owl Recovery Team identified two primary threats to address - the present or threatened destruction of habitat and the inadequacy of existing regulatory mechanisms - both of which the BEROD has the potential of addressing. However, there are several problems with the currently proposed BEROD. First, thus far there has been no biological input into the development of the ordinance. Instead, emphasis has been placed on its ability to generate revenue for the expanded Preserve and augmentation program. As a result, it falls short of the requirement to ensure that it minimize and mitigate take of the pygmy-owl to the maximum extent practicable. And, due to the dire status of the owl and the uncertainty of the success of the pygmy-owl augmentation program, allowing current take of the owl would violate the mandate that any take not appreciably reduce the likelihood of survival and recovery.

The BEROD as currently drafted allows for the continued destruction of habitat known to be occupied currently or in recent years and potential habitat in close vicinity in order to generate funds to conserve habitat that has not been known to be occupied, nor that carries any more certainty that it can sustain owls in the future, and is located further away from currently-occupied habitat.

Even if the Preserve expansion and augmentation program were implemented, protecting habitat outside of the proposed Preserve would be important not only for the owls currently in the area, but to maintain habitat to sustain owls that may disperse from the proposed Preserve; otherwise, the corridors proposed between the Preserve and the Town will simply lead them into areas where they cannot survive.

There are other issues that need to be addressed. In particular, I-10 and Avra Valley Road is the only viable pygmy-owl crossing in what has been defined as a "Critical Landscape Linkage" by Pima County's Sonoran Desert Conservation Plan (SDCP), and is included by the federal owl Recovery Team as part of Recovery Area 2. This area is currently planned for commercial development in the Town's General Plan, and needs to be down-planned and protected either by addition to the Preserve, an addition to the BEROD, its own overlay district, or some other method. Other areas of Recovery Area 2 that need protection are linkages from the Tucson Mountains to the Santa Cruz River and the

Tortolita Fan, and the State Trust Lands north of Saguaro National Park West. In addition, habitat for the burrowing owl, the Tucson shovel-nosed snake, and the ground snake need to be preserved by ordinance, either through the BEROD, other overlay district ordinance(s), or other some other method.

The Coalition understands that the Town needs a funding mechanism in order to meet the requirements of an HCP. However, we must stress that there needs to be a funding mechanism that is not solely contingent on development in the most environmentally-sensitive areas. Otherwise, development and the negative impacts that result, including take, will always precede conservation. In the case of the pygmy-owl, this scenario neither meets the requirements for minimization and mitigation nor the need to restrict take in order not to appreciably reduce the likelihood of the owl's survival and recovery in the wild.

Recommendations:

1. Assemble a “BEROD/Ordinance Committee”³ to:
 - Incorporate the best available science about what areas are most necessary for the survival and recovery of the pygmy-owl and other species that will be addressed under the HCP (burrowing owl, Tucson shovel-nosed snake and ground snake);
 - Review existing conservation measures as it relates to recent and current development to identify where gaps lie;
 - Specify requirements under the BEROD that avoid, minimize, and mitigate impacts to species targeted for protection under the HCP to the maximum extent practicable,⁴ and under what limited circumstances unavoidable impacts will be allowed to give full protection to occupied habitat; and
 - Determine the best method(s) for conserving pygmy-owl linkage at I-10 and Avra Valley Road, other areas of Recovery Area 2, and habitat for burrowing owl, Tucson shovel-nosed snake and ground snake.
2. Apply BEROD to hard-zoned property, not as a condition for rezoning. Rezoning should and should achieve higher conservation.
3. Link mitigation fees for acquisition and management to any undisturbed land within Marana, not just development above 30% in the BEROD areas, in order to generate necessary funds.

³ Members of the committee should include biologists with expertise in species and issues affected in the BEROD area, and members of both the conservation advocacy and the development community. Meetings should commence as soon as possible in order to meet the Town’s proposed timetable.

⁴ “Avoidance to the maximum extent practicable” means that impacts should only be allowed for 1) essential public health and safety projects, 2) the minimum amount of development necessary to avoid constitutional takings, or 3) for a biologically superior alternative.

Conservation Strategies for the Burrowing Owl

The conservation strategy for the burrowing owl is based on the preservation of Burrowing Owl Management Areas (BOMAs) in areas that are or will be free from development. While we commend the Town on its efforts to conserve this owl, strategies for conservation of the Burrowing owl outside the BOMAs need to be strengthened in order to minimize and mitigate impacts to the species to the maximum extent practicable.

Recommendations:

1. No burrowing owl evictions during the breeding season. During the breeding season, fully protect active burrows and surrounding foraging habitat in project areas where owls are found to be present. During the breeding and dispersal season, clearing surveys should occur within 7 days prior to initiation of construction activities.
2. Include a description of suitable burrowing owl habitat in development survey protocol.
3. Mitigate for any destruction of suitable burrowing owl habitat.
4. Implement an ordinance to protect burrowing owl habitat (including banning outside domestic cats adjacent to BOMAs).
5. Ensure that BOMAs are kept free of all harmful land use practices.
6. Provide for an endowment to manage the BOMAs in perpetuity.

Conservation Strategies for the Tucson Shovel-nosed Snake

Conservation of the Tucson shovel-nosed snake is focused almost solely on mitigating for development impacts with potential habitat of higher quality in Pinal County. This does not meet the requirement to minimize impacts to the maximum extent practicable. In addition, until the uncertainty related to purchasing mitigation lands is resolved, this proposal as written does not assure that a net benefit will occur for the snake. Because most of the snake's highest-quality habitat in the Town has been destroyed, active conservation of the remaining habitat is needed in order to support long-term survival and recovery, especially since a snake was recently found just north of the Town.

Recommendations:

1. Avoid to the maximum extent practicable Tucson shovel-nosed snakes within the Town, including configuration of projects to avoid occupied habitat and implementation of an ordinance to protect snake habitat.
2. Include a description of suitable Tucson shovel-nosed snake habitat in development survey protocol.
3. Mitigate for any destruction of suitable shovel-nosed snake habitat; mitigate for development impacts prior to development. Mitigation should seek to conserve potential shovel-nosed snake habitat within the Town limits first.
4. Provide assured funding for shovel-nosed snake inventories inside and adjacent to the Town for the duration of the permit.

Conservation Strategies for the Ground Snake

The current approach for ground snake conservation focuses primarily on protecting ground snake habitat between the C.A.P. canal and I-10, and acquiring more information about the snake's biology. Since the details of the primary conservation strategy-the development guidelines that will specify required set-asides, mitigation, and project configuration for this area-have not yet been drafted, we are unable to determine whether impacts to the snake are minimized and mitigated to the maximum extent practicable. However, as with the other species, we feel that conservation measures for the ground snake outside of the area between the C.A.P. canal and I-10 must be strengthened in order to meet HCP requirements to minimize impacts to the snake to the maximum extent practicable.

Recommendations:

1. Formulate development guidelines with input from Marana's Technical Biology Team and known experts in snake biology. Guidelines should quantify the amount and quality of habitat that is required for set-asides and mitigation of ground snake habitat, and the limited circumstances under which unavoidable impacts will be allowed. Where appropriate, codify guidelines through ordinance.
2. Include a description of suitable ground snake habitat in development survey protocol.
3. Protect currently occupied ground snake habitat through on-site conservation, which should be configured to provide contiguity with adjacent open space.
4. Mitigate for any destruction of suitable ground snake habitat.
5. Provide for surveys throughout the duration of the permit.

Interim Conservation Measures

Allowing development to proceed in the present in exchange for potential conservation in the future does not provide adequate certainty that benefit to the species targeted for protection under the HCP will be achieved. Until the time that such assurances are provided, take cannot be permitted.

The Coalition, in its August 2, 2002 letter accepting the Town's invitation to serve on the Stakeholder Working Group, posed the question, "(h)ow will you address Endangered Species Act compliance by the (Town) and the property owners for development projects that may come forward prior to preparation of the HCP?" Additional comments stated, "Marana should act immediately to greatly limit project-by-project destruction of important habitat through passage of an interim habitat protection ordinance pending preparation of the HCP. As well, due to the amount of capital road improvements being conducted in Marana in the next two years, Marana should immediately develop interim 'environmentally-sensitive road design' guidelines."

Mayor Sutton responded in a September 4, 2002 letter by saying, "(y)ou raise an important point. I have directed staff to consider the development of interim conservation measures that will encourage ongoing projects to align with our HCP planning effort." However, we have yet to see interim conservation measures developed by staff or adopted by Mayor and Council.

Recommendations:

1. Develop and adopt interim conservation measures as soon as possible that address:
 - The present or threatened destruction of pygmy-owl habitat due to the dire status of the owl, following the ESA mandate that any take not reduce the likelihood of survival and recovery. The measures must protect currently-occupied habitat; and
 - Protection of other environmentally-sensitive resources and species identified through the SDCP process, the Town's biological work, and the Town's General Plan.

Funding

The most successful conservation programs are those that have identified multiple, and varied, funding sources. Any strategy that depends on a sole funding source has a diminished chance of guaranteed long-term success. Thus far, the only funding that seems to be identified is an impact fee, which in the case of the proposed BEROD, would be wholly dependent upon destruction of environmentally-sensitive lands. Other funding sources could and should be pursued.

Recommendations:

1. Pursue multiple funding sources. Examples include voter-approved funding (such as open space bonds and sales taxes), real estate transfer tax, mitigation fees, federal grants, direct Congressional appropriations, and private foundation grants.

Public Participation

A successful conservation planning effort must include a robust public participation component in order to succeed. In addition to stakeholders, citizens should be able to participate in negotiations in the plan's development, because conservation plans affect not only the private landowner(s) involved but the public as well, and almost always public resources. As well, a fully informed public creates support and ownership of the plan that will provide substantial long-term benefits to the Town.

It is very important for citizens to participate in plan development from the early stages, when decisions about conservation strategy and Preserve design are being made⁵. Often, by the time official drafts are released for comment, both the regulated community and the permit applicants have invested so much money and time in plan development that they are unlikely to change course⁶.

Unfortunately, this has been the case in Marana's planning process. Members of both the Stakeholder Working Group and the Technical Biology Team have expressed frustration that their input has been limited to small details of largely already-constructed strategies.

⁵ Kostyack, J. 1997. Habitat conservation planning: time to give conservationists and concerned citizens a seat at the table. *Endangered Species Update* 14(7&8): 60-62.

⁶Defenders of Wildlife. 1998. *Frayed Safety Nets*. p.41.

Recommendations:

1. Make a presentation(s) comparing the alternative conservation strategies to both the Stakeholder Working Group and the Technical Biology Team that is open to the public. In the case of the pygmy-owl, the presentation should include development that has occurred in critical habitat since the listing, projected development patterns (both with and without the BEROD), acreage of total development impacts (total development impacts and those specific to the pygmy-owl, both with and without the BEROD), and acreages and configuration of state and privately-owned land.
2. Ensure that stakeholders, biological experts and technical team members have genuine input into development of the Plan, as the Conservation Strategies and Habitat Conservation Plan become more detailed. As well, the interested members of the public, particularly citizens of Marana, should be invited to participate and comment before the plans are finalized.

Conclusion

The Town of Marana is embarking upon an unprecedented conservation planning effort that is both bold and ambitious. We commend the Town for looking ahead toward broad recovery efforts for the pygmy-owl and protection of other vulnerable species in and around Marana. The Coalition supports the concepts of Conservation Measures for the four species. This includes support for the Preserve, augmentation program, BEROD elements, and conservation for the other three species, contingent upon the Town's incorporation of our recommendations as outlined in these comments.