

HABITAT CONSERVATION PLAN
Technical Advisory Committee
August 1, 2006. 9:00 – 11:00 am
Arizona Game and Fish Department Conference Room
555 North Greasewood Road
Tucson, Arizona 85745-3612

MEETING SUMMARY

Attendees: Guy McPherson, Trevor Hare, Rich Glinski, Linwood Smith, Lori Anderson (Coalition for Sonoran Desert Protection), Ralph Marra (Tucson Water Department), Marit Alanen (USFWS), Dennis Abbate, Phil Rosen (University of Arizona), Michael Wyneken and Leslie Liberti (City of Tucson – Office of Conservation and Sustainable Development), Jessica Lee and Geoff Soroka (SWCA)

1) Update on Upcoming TAC Meetings

a. Scheduled TAC Meetings:

- **August 15, 9:00 – 11:00 AM @ AGFD.**
- **September 5, 9:00 – 11:00 AM @ AGFD.**
- **First and Third Tuesdays, 9:00 – 11:00 AM @ AGFD.**

2) Old Business

a. July 18, 2006

No meeting minutes available at this time. Leslie said that the draft meeting minutes would be sent out next week by email.

b. Update on Southlands

Geoff noted that he is waiting for the pdf of the proposed expanded planning area to email to the various subcommittees. Geoff reviewed the list of preliminary target species. He noted that the TAC had concluded that Nichol's turk head cactus would be left off the conservation targets list. He said that he and Trevor are still waiting to talk to Cecil Schwalbe (University of Arizona) about desert tortoise. Leslie noted that it would be important in the scope of the HCP to locate the tortoise migration patterns. Then Geoff mentioned that he met with Courtney Conway (University of Arizona) about the possibility of doing a study of the effects of Roundup on burrowing owls in Avra Valley. Courtney said that he is not interested in conducting a lab-based study, but that he would be interested in performing a field study on the after-effects of Roundup. Leslie added that Courtney believes the lab costs would be expensive and the information gathered would not be valuable or defensible, because it would be difficult to differentiate between other potential factors of population decline, such as loss of prey species and loss of cover. He instead suggested a field study that would take advantage of the detailed data for burrowing owls in the Tucson basin that he already has available,

including survivability, birth rate, flight fidelity, and many other demographic parameters that could be used for comparative purposes. Geoff then continued to the next species on the list, explaining that he reviewed the information from Priscilla Titus' Huachuca water umbel report found on the Sonoran Desert Conservation (SDCP) website. He noted a couple of locations outlined in the report as areas for potential Huachuca water umbel habitat, including La Cebadilla wetlands and Cienega Creek. He also suggested considering Agua Caliente Lake and Sweetwater wetlands as potential habitat. He noted that the isolated spring GIS layer that Pima County has would also be a good tool for locating potential habitat for this species. Geoff also noted that he contacted Kathryn Mauz (former University of Arizona graduate student), but she said that she had concluded her studies and is somewhat disconnected from the University now.

Geoff then noted that he is still waiting to receive the Cienega Creek fish monitoring data from Doug Duncan (USFWS). He said that he is meeting with Tom Skinner (Coronado NF) later today to review the preliminary HCP target species list, and to get initial comments from the agency. The Coronado NF is currently going through the Forest Management Plan revision process, so there is likely to be relevant discussion of Species of Concern that the City and the TAC would be interested in knowing about. He noted that the agency also has no issues with the City dropping the yellow-nosed cotton rat from the list since the HCP expanded planning area would not include oak woodland.

Geoff continued with Merriam's (=mesquite) mouse. He noted that some questions have been raised regarding Ken Kingsley's report: "Evaluation of Mesquite Mouse Status in Pima County" that he completed for Pima County in May 2005. Geoff noted that, according to Dr. Rosen and Dr. Petryzyn, until the genetic data is sorted out, potential habitat could not be identified for the species. Phil said that, per the request of the TAC, he would write a letter to Brett Riddle (University of Nevada Las Vegas) requesting the test results. Phil explained that the initial genetic results are not what were expected, given that Kingsley found mesquite mice at nearly every trapping location, including a bajada where the species would not be expected. Geoff also suggested attempting to gain access in order to trap the mice within the San Xavier District of the Tohono O'odham Nation, an area that historically had a high density of the species. Mesquite mouse is a priority vulnerable species in the SDCP, but has no USFWS listing status.

Leslie provided information on yellow-billed cuckoo (YBC). Ann Phillips noted that a bird survey team had conducted a one-point YBC survey on July 14 and July 31, 2006 at the Simpson Farm site where the YBC individual had been heard before. The team noted that an individual YBC responded to taped calls on July 14. They concluded that, since they have heard an individual for the third consecutive year at the same location, the individual might be nesting. Leslie had not heard results from the July 31 survey. Ann noted that Scott Wilbor (Tucson Audubon Society) could go back for a third survey if needed. Linwood noted that YBC typically migrate from this area around the third week in August. He stressed concern about the bird team assuming that the individual was nesting, and said that it would be important to find the nest and observe fledglings. Rich and Dennis agreed. Leslie suggested that someone with AGFD go with Scott to take part on the survey. Dennis said that he would contact Scott.

c. Update on Buffelgrass Management

Leslie distributed copies of two proposals submitted to the TAC by Travis Bean (University of Arizona Desert Lab) titled "Native and buffelgrass seedbank characteristics following chemical control of buffelgrass on City of Tucson property in Avra Valley" and "Mapping of buffelgrass on City of Tucson property in Avra Valley." Leslie noted that the seed bank study is a four-year study, with a budget of approximately \$6,000 the first year, and \$3,000 for each of the following three years. The budget for the mapping project would be approximately \$900. The TAC approved the mapping project. Leslie clarified the HCP research budget for the Segment 2 grant proposal, explaining that approximately \$97,000 was available. She noted that the budget for the cacti surveys was estimated at \$21,000, and that some money would be needed to conduct surveys for agave and saguaros in the expanded planning area. Guy asked if Travis had released his data from the June 2006 Avra Valley baseline survey, and Leslie said that she did not know. Rich expressed concern about the methodology used to measure viability. Leslie said that she would ask Travis to better detail the methodology for the TAC. The TAC approved the seed bank research project assuming that when Travis prepares a more detailed research proposal the budget is not drastically changed. Leslie noted that Travis is giving a buffelgrass presentation to the Pima County Board of Supervisors this morning and so he could not attend the TAC meeting.

Leslie explained that the IGA for buffelgrass management is a joint contract between the City, University of Arizona, and USFWS. She said that there has been some discussion about doing a joint RFP as well, and that the City Parks & Recreation Department is putting the RFP together. She also noted that she heard from USFWS that the Environmental Assessment (EA) for the buffelgrass management project has received only a few public comments. Trevor stressed that it is important to coordinate with the local neighborhoods surrounding "A" Mountain and Tumamoc Hill in order to help manage buffelgrass in the area, and he suggested contacting the Sonoran Desert Weedwackers. Leslie noted that some of the neighborhoods are already making efforts to clear buffelgrass, and highlighted how Panama Estates pooled money together and already hired contractors to remove buffelgrass. Concern was also raised about working with Pima County and Arizona Department of Transportation in dealing with buffelgrass in the right-of-way easements in the area. Leslie suggested that Travis push the issue at the next Pima-Santa Cruz Cooperative Weed Management Area (CWMA) meeting where local and regional coordination was already taking place. Guy noted that the Arizona Invasive Species Council has submitted a report to the Governor, but that she has not acted on it yet. Ralph mentioned that Access Agreements would likely be needed for all field research conducted on City properties and that he would confirm.

d. Potential Herpetological Research Relevant to HCP – Phil Rosen

Phil distributed a handout detailing several potential herpetological research surveys relevant to the HCP, including investigations into urban reconciliation ecology and urban-wildlands population status and monitoring. He also distributed a map of amphibian locations from surveys in 2004 and 2005. Phil stressed that there are good opportunities available in keeping native amphibians and reptiles living in the City, but it is important to

understand how these species interact with infrastructure such as grade control structures, concrete channels, golf courses, retention and detention basins, etc. He highlighted the locations of current amphibian populations, such as Reid Park, and reptile populations, such as Rillito River (before the July 31, 2006 flood). One proposal is to further survey amphibian population distribution, status, and conservation within the Tucson area, in order to better understand the viability of these populations, and to potentially create other suitable urban amphibian environments. This would involve developing a monitoring design. He suggested focusing these surveys in Avra Valley and on the southeast side near Vail. Pima County is providing some research funding for evaluating infrastructure in the Southlands area. He stressed that, due to recent rainfall, prime survey conditions will continue for the next three to seven weeks. Phil expressed his surprise to the TAC regarding the density of urban lizard populations that he found along Rillito River, one of the highest abundances he has observed in southern Arizona. He is interested in investigating why this area contains such viable populations, and to compare those abundances to non-urbanized environments. He is also interested in studying how the loss of vegetation, due to the scouring of the riverbed from the flood, could impact these populations. Dennis asked Phil if he has observed any uncommon lizard species near Rillito River. Phil noted that no special-status species have been found, but he did note the presence of Clark's spiny lizard, Sonoran spotted whiptail, and regal horned lizard. He also noted that giant-spotted whiptails have not been observed along the Rillito corridor, only to the east and within the Santa Cruz corridor.

Phil explained that another potential survey idea would be to look for the giant spotted whiptail, Mexican garter snake, and ranid frogs in the Vail-Pantano Wash and Cienega Creek areas. The whiptail is currently found in Las Cienegas National Conservation Area (BLM) and in upper Tanque Verde Canyon. He also proposed evaluating the status and distribution of Mexican garter snake, which has been observed in Cienega Creek. He noted that he has monitored leopard frogs in Cienega Creek since 1995, but without a formal protocol. Phil explained that, for some of these research proposals, he would only be asking the City for a small amount of maintenance money which he would then apply towards grant match funding requests. He noted that the AGFD Urban Wildlife Program might also be interested in some of these proposals, as well as Pima County.

As part of the urban-wildlands population status and monitoring, Phil proposed survey efforts for ground snake and re-survey efforts for Tucson shovel-nosed snake in Avra Valley. He noted that the ground snake has been observed in Avra Valley, but there are still questions regarding the potential for Tucson shovel-nosed snake habitat. He explained that after the good summer rains the upcoming fall and winter would be a good time to survey for both snakes.

Rich asked Phil to prioritize the research proposals. Phil noted that since conditions are prime for amphibians now, surveys for breeding amphibians in Avra Valley and the Vail area should be conducted immediately. He also noted that the surveys for giant spotted whiptail and ground snake are probably more important for the HCP than the other species. Since chances are that Tucson shovel-nosed snake habitat may fall north of the HCP planning area, this survey is less important. As for the Mexican garter snake and ranid frog, Phil does not think that the City's proposed activities would impact them in the

near future, thus these could be studied later. He also thinks that there is a greater opportunity for conservation of ground snake populations in Avra Valley. He is not asking the TAC to fully fund the research proposal by developing a monitoring design to evaluate population status of urban amphibian populations, because this would require a large budget in order to hire a full-time graduate student. However, if the TAC expresses that they value urban wildlife research, he could start talking to Pima County and other parties in terms of working on a partnership. He said that the urban amphibian survey should be done at some point, but it is not as pressing in terms of the HCP.

Leslie explained that, in HCP terms, research proposals should focus on population status for target species, or on information that provides a sense of habitat quality within the planning area, as well as potential mitigation areas. It would also be relevant to fund research on development design in minimizing impacts to target species. In terms of monitoring and adaptive management, the TAC needs to evaluate species and habitat components over the long-term, in order to evaluate the impact of implementing the HCP.

Phil noted that he supports any City efforts to increase the native biodiversity within urban areas, and he feels that urban reconciliation ecology could provide an opportunity to develop and sustain native populations within the City. For example, there are currently six to eight native amphibian species living in the City, which comparatively, is amazing. Trevor suggested that successfully promoting biodiversity could help efforts in the Southlands, and could be included in the research for mitigation strategies. He also noted that the Marana HCP work will resume soon, and perhaps the TAC should not fund any surveys that Marana might consider funding. Leslie explained that Marana did not receive any federal HCP funding in the last grant cycle and did not apply for funding in the current cycle, thus, they are currently self-funding their HCP. Marana is focusing HCP efforts on the east-side of Interstate 10, thus, chances of research overlapping with Avra Valley is slim. Trevor asked Phil if survey findings for the Rillito corridor could be compared to areas in the Southlands. Phil said that the areas are different, however, that other riparian areas created by urban run-off within the City could be compared to the Southlands. Leslie stressed that the HCP is an attempt to maintain the quality of ecosystems, even if it is in an urban environment, as a way to support target species.

Leslie clarified that approximately \$34,000 of the \$97,000 research fund money has been earmarked for other surveys. The TAC discussed which of Phil's proposals would be applicable for the HCP. Leslie noted that the TAC should consider that research money must be spent by June 2007 when choosing which proposals to fund. Trevor noted that studying the effects of the flood on the Rillito River could be important in developing a strategy for restoring the El Rio Medio stretch of the Santa Cruz River. Dennis stressed that the TAC needs to be careful about using the lizard populations in the Rillito corridor as a standard. He also noted that perhaps the TAC should choose surveys that take advantage of the good amphibian breeding conditions in the Rillito corridor, and study the effects of the flooding. Trevor noted that it might be more important to fund Phil's research than the desert tortoise migration pattern survey, because the City's activities would likely not impact the tortoise in the near future anyways. The TAC also agreed to put aside some money to fund Courtney Conway's

burrowing owl research. Ralph requested that formal research proposals be written for surveys, and the TAC agreed that this is important.

Following are Phil's proposals that the TAC agreed to fund:

1. Surveys for amphibian population distribution in Avra Valley, and near Vail (\$4,000)
2. Evaluation of amphibian populations associated with infrastructure (\$2,000)
3. Monitoring lizard populations in Rillito River and other corridors through floods
4. Comparing urban area lizard abundances to those in non-urbanized environments (total of \$5,000 for 3. and 4.)
5. Survey for giant spotted whiptail near Vail/Pantano area (\$1,000)
6. Survey in Fall 2006/Spring 2007 for ground snake in Avra Valley (\$2,000)

3) New Business

a. Avra Valley Discussions

Leslie distributed several informational handouts for the HCP Avra Valley planning sub-area, including the map of the proposed habitat conservation priorities, the habitat maps and acreage estimates for each target species, the conservation programs detailed in the Preliminary Draft HCP, and a table detailing the percent habitat protected in the Southlands and Avra Valley sub-areas for each of the target species. Regarding the table, Leslie noted that although only 35 percent of PPC habitat is protected, 63 percent of habitat classified as "high density" is protected. For pale Townsend's big-eared bat, Leslie reminded the TAC that the potential foraging habitat was mapped broadly and might need to be revisited. She also noted that yellow-billed cuckoo habitat was mapped similar to that of cactus ferruginous pygmy-owl. She stressed that these habitat protection estimates all depend on negotiations with the Arizona State Land Department. She noted that the TAC should be evaluating a couple of questions. First, for each of the target species in Avra Valley, is the proposed conservation adequate? If not, what additional strategies and measures should be implemented for the overall mitigation to be effective. She noted that the percent protected habitat numbers are based on a strategy of 100 percent avoidance of these areas. However, there might be cases where Tucson Water has to intrude into the priority areas, requiring a need for mitigation flexibility in the HCP. The second question involves the specific configuration of the priority areas and migration corridors, and whether they should be general or species-specific. In the monitoring and adaptive management plan, what guidelines should be established and how could this be modified over time in order to measure the success of the HCP? Leslie asked the TAC what additional information they would need in order to think about these questions. Trevor requested the 1:200 scale maps of the Avra Valley planning sub-area. He also suggested that this might be a good time to address desert tortoise migration patterns between Saguaro National Park (West) and Ironwood Forest National Monument, and he volunteered to talk to Cecil Schwalbe about it. He also requested the map illustrating protected areas under the proposed State Trust Land reform. Ralph asked about the timeline for the Interstate-10 by-pass route. Leslie said that, as far as she has heard, there is not enough demand to construct that roadway.

She also noted that Pima County has created a new category for land acquisition through the allocation of a bond that allows the County to purchase parcels of land that are part of important corridors.

4) Call to the Public

No members of the public were present at the meeting.

5) Next Steps/ Future Meetings

The next meeting is scheduled for August 15, from 9am-11am, at AGFD. The TAC will continue discussing HCP strategies for Avra Valley.