

Technical Advisory Committee Meeting Summary
September 2, 2004 1:00 – 4:00 pm
Water Resources Research Center

Attendees: Dennis Abbate, Trevor Hare, Rich Glinski, Guy McPherson, Marit Alanen, Ralph Marra, Ann Phillips, Linwood Smith, Bruce Prior, Michael Wyneken (City of Tucson – Planning), Melissa Antol (City of Tucson – Planning), Rafael Sebba (City of Tucson – Planning), Clint Chiavarini (City of Tucson – Planning), Leslie Liberti (SWCA), Ken Kingsley (SWCA), Carolyn Campbell (SAC member)

1. Conservation Targets

- Selection Criteria

Leslie asked if, after reviewing the technical memo handed out at the last meeting, the team had any concerns regarding the criteria used to identify potential targets and categorize the targets with respect to need for take coverage. No one on the TAC expressed any concerns.

- Species to Add to List

Leslie then asked if anyone had specific suggestions of species which should be included in the list but had not been. Trevor suggested that some species might have been overlooked. Linwood asked if Trevor had any specific recommendations and Trevor replied that he did not.

Ken explained that SWCA had done an HDMS query, but had excluded any species that did not have a special status. He suggested that there might be some non-status species that should be included. Leslie added that species with only Forest Service and/or Bureau of Land Management status were not included.

Leslie pointed out that Marit had made some specific recommendations in the email she sent out prior to the meeting. Marit explained the table she had created based on HDMS records within 2 miles of the Southlands and Avra Valley project areas. Ken had some questions about the Nichol's Turk's head cactus documented in/near the Southlands and asked if more information could be provided on those records.

Leslie asked if there were any particular sources or categories of species that had been omitted but should actually be included. Rich said that, instead of focusing on the procedure since the analysis and resulting list seemed fine, that TAC should make specific recommendations of species to include. He also felt that these recommendations should not be screened prior to being added; the TAC would filter them later using the occurrence and listing potential criteria.

Leslie summarized by saying that Marit's suggestions would be added to the list.

Trevor asked if the Arizona Breeding Bird Survey (ABBS) had been consulted. Ken replied that it had not been consulted specifically for this process or for the report previously prepared for the City. However, he pointed out that the ABBS was consulted in developing the SDCP documents on PVS, and those documents were considered in this process. Also, ABBS records were incorporated into the HDMS for species tracked by the HDMS. Marit also noted that the HDMS program had a backlog of data to enter and there might be other species

documented nearby but that did not show up because they had not been entered into the database yet.

Dennis asked about how much effort had gone into the consideration of insects or invertebrates that are not tracked by HDMS. Ken replied that very limited effort had been made; the primary focus had been on insects and invertebrates included in the SDCP. He added that there are lots of insect species, but many rare species have not yet been named and very little is known about them. There were no species of concern that he knew about that hadn't been included already.

Dennis wondered if insects and invertebrates needed to be addressed in more detail. Trevor asked about solitary bees, and in particular the one that pollinates Pima pineapple cactus. Ken said the one native bee that was considered to be a key PPC pollinator is known to be a generalist. Trevor asked about whether an assemblage of insects should be considered. Ken replied that information about the relative importance of the Tucson populations of bees was limited but that he would talk to Steve Buchman who knows quite a bit about native bees, to see if any species of particular concern were known from the area.

Rich suggested that the TAC consider adding a "watch list." This would add a fifth category of species in the target list. Leslie asked Rich if he was talking about a set of species over which the City really had no control in terms of potential conservation measures. Rich confirmed and added that the Heritage Fund had a wish list of species and they might be able to suggest appropriate conservation measures that could be implemented.

Leslie summarized the discussion by saying that the TAC would consider any suggestions made of species that had been overlooked but should be addressed in the planning process and that the TAC would like to have the option of a fifth category of species. The five categories would be:

1. species present or with potential to occur in planning area and listed or likely to be listed – HCP targets
2. species listed or likely to be listed and with potential for habitat to be created through restoration – Safe Harbor/Candidate Conservation targets
3. species present, but not likely to be listed, and for which the City could contribute to conservation through the adoption of voluntary recommendations – conservation recommendation targets
4. species present, but for which the City cannot contribute to conservation – watch list targets
5. species with no potential habitat in the planning area – excluded from consideration

Leslie asked Ann if she wanted to discuss her suggestions regarding the definition of "present" for categorization based on occurrence. Ann explained that she had talked with Scott Wilbor, a Conservation Biologist with Tucson Audubon Society, about occurrence potential for birds along the Santa Cruz River. Scott had suggested that the occurrence categories be modified to distinguish between species that had been documented within a certain area, species for which habitat suitable for long-term residence occurred within that area, and species for which the area was part of their migratory pathway. Ann was concerned that the current definitions would result in an inaccurate assessment because a single documented occurrence did not mean that the species occupied an area, but conversely, the absence of records of a species in an area did not mean that area was not utilized by that species for some purpose (for example, migration stopovers). Ann said that she would get revised definitions from Scott prior to the next meeting.

Linwood agreed with Ann's suggestions. Leslie asked if there were any species besides birds that would be affected. Marit noted that bats should be considered on this basis as well. Rich pointed out that this was especially relevant with the Santa Cruz River and its restoration potential. The remainder of the discussion focused on changes needed with respect to occurrence or potential listing status of the species already on the target species list.

- Pima pineapple cactus

Trevor asked if PPC should be considered 'present' in Avra Valley. Ken stated that none had been found on all of the properties included in the planning area, but there could be plants that were missed or the species could colonize on one or more of the properties. He stated that thorough surveys were not conducted as part of the fieldwork for the Avra Valley report. Most of the properties are retired agricultural lands that do not have conditions typically associated with this species.

Dennis pointed out that the maps of the planning area that TAC had been given did not show the parcel numbers referenced in the target species spreadsheet. Trevor asked if the color maps from the SWCA reports could be provided to the TAC. Michael said that the City would put the reports on the HCP website and that color maps could be provided at the next meeting.

- Cactus ferruginous pygmy-owl

Dennis noted that Game and Fish had tracked a pygmy-owl near and possibly even across one or more of the Avra Valley parcels. Ken asked if AGFD could provide a map of the planning area showing where the owl had dispersed. Dennis was not sure if AGFD could release that information. Trevor asked if the Avra Valley planning area should be changed to 'present' for CFPO. Dennis said that he would give that some thought.

Marit suggested that the washes in the Southlands could provide potential wintering habitat for CFPOs. Ken noted that the area is in survey zone 2. Dennis added that no birds had been found on the east side but that there had been a limited amount of surveys done there.

Leslie asked if they were suggested that the Southlands should be added as potential for occurrence. Dennis said that there was no indication that the owls use that area, but that maybe the area should be surveyed. Trevor asked about reports of CFPOs in Saguaro National Park East. Ken referred to a record from Box Canyon in 1995 but Rich said that it was likely a northern pygmy-owl. There is also a record that is considered verified from the Cactus Forest Loop Road in 1984. Dennis said that there are historic records from the east side, just none recent. Ken stated that many surveys have been done by consultants since the species was listed, but no owls have been reported from this general area. The USFWS and AGFD have records from all the surveys done by consultants. Bruce asked about the SDCP habitat model. The model shows the Southlands as potential habitat.

Rich asked about the impact of Marana's proposed augmentation. Leslie briefly described what the Town was proposing and explained that USFWS was willing to extend take coverage from Interstate-10 in Marana around to Cienega Creek Preserve for anyone who was willing to implement the Town's proposed strategies in their own HCP. Dennis noted that the owl can move great distances. Guy suggested that, since the potential habitat was there, it seemed obvious that the Southlands should be considered as having the potential for CFPOs. Dennis clarified that the owl only flies low over short distances so, unlike an eagle, there were a lot of

potential barriers to the owls moving into an area. Ralph also mentioned that Scott Richardson had told him that the distance an owl covered was typically not in a straight-line fashion, but rather they zig-zagged and so would not actually cover that much linear distance.

Leslie asked if the Southlands should be added but with a new category of occurrence potential, specifically “potential pending augmentation.”

There was some additional discussion of the quality of habitat in the Southlands, but Rich noted that if there were enough owls (which might be the case if the Marana augmentation goes through), they would end up moving out of preferred habitat (thought to be riparian) as those areas reached carrying capacity and they would move into less preferable areas like the upland habitat in the Southlands.

Ralph asked for clarification on how the models were developed. Leslie explained that it was a GIS exercise that involved rating blocks of land according to how suitable they are with respect to a set of variables considered most important for the owl. These variables included things such as vegetation type, landform, hydrology, slope, or elevation. She noted that the models were constructed at a very coarse scale and there were problems using them to consider habitat potential in localized areas. In addition, the division between high, medium, and low potential habitat was not tied to biology, often important variables were not available or were omitted from the models, and some of the variables were redundant so their importance was overemphasized in the models.

- Lesser long-nosed bat (and other bats)

Marit said that Tim Snow, with AGFD, had confirmed that the Southlands is potential foraging habitat for LLNB, especially since there used to be a roost at Colossal Cave. Ken noted that Colossal Cave was outside the planning area boundaries and Leslie noted that the potential for LLNB use of the planning area was for foraging habitat only (because of the lack of caves).

Rich asked whether the bats would bivouac in trees. Ken said that they do have day roosts, but those are typically in old mines or caves and there are no known day roost sites in trees. Ann asked if bridges were used as roost sites. Ken replied that there were no records of such. Rich asked about whether they used artificial, building-like structures. Ken said that they might sometimes use buildings as day roosts. He added that Sandy Wolf had done a study on bats and bridges, but had not found any LLNB under bridges or culverts. Trevor suggested talking to Dave Dalton and asked about whether the group should be concerned about water drawdown near Colossal Cave. Leslie noted that the legal liability associated with impacts of water resource use on listed species was very uncertain. Ralph pointed out that the eastern portion of the Southlands is not conducive to groundwater pumping so this would likely be an issue in any case.

Marit brought up the fact that bats are protected from lethal take by State law, especially potential roosts, which tend to be used by multiple species. She said that there was concern over actions on the part of local jurisdiction that might unintentionally result in significant bat mortality, in particular, the tarring (resurfacing) of bridges under which bats are roosting.

There was some discussion over whether the HCP process was the appropriate place to handle these types of issues. It was decided that, since it is not an ESA issue and the problem seems to be lack of information and poor communication, that Marit would talk with Michael about the

best way to provide this type of information to the City so that it can be considered in the planning and implementation of projects.

- Yellow-billed cuckoo

Ann noted that YBC is present in northern Avra Valley. She also suggested that the 'notes' section of the spreadsheet be reworded to say "Present cottonwood-willow vegetation along the Santa Cruz River..."

Ann asked why some of the Tucson Water holdings in Avra Valley had been left out of the planning area. Ralph responded that he was not sure, but thought that it was because they were not likely to be developed. Ann noted that parcel 5, which had been excluded, has had YBC.

Ken said that he had done bird surveys in the wetted portion of the Santa Cruz in 1999 and 2000, but had not found cuckoos. He did not do formal surveys for YBC, however. Ann suggested that they should be considered 'potential' for this portion of the planning area.

- Pale Townsend's big-eared bat

Trevor asked several questions about the PTBB. According to Ken it is insectivorous, it is not attracted to development, and it can be found in the Santa Rita, Catalina, and Empire Mountains. It roosts in old mines, caves, and occasionally in buildings.

- Burrowing owl

Ann and Marit noted that BUOWs had been found on parcels 2a, 3, and 5 in Avra Valley.

- Tucson shovel-nosed snake

Leslie pointed out that there were some issues regarding the genetics of the snake that could affect listing potential. The Marana technical team felt that the TSS was likely to be listed, pending the successful resolution of these issues. Trevor added that there would be a petition to USFWS soon to list the snake. He said that behaviorally, morphologically, and in terms of habitat preference this sub-species is distinct. He did note that no DNA work has been done to date, although there is a student in Utah who might do so.

Ken asked if the snake were to be listed, would it be as a distinct population segment (DPS). Trevor said that would be the case and that the TSS falls on a continuum of several sub-species rather than being genetically isolated.

Rich asked about the Marana TSS habitat model. Leslie explained how Phil had modeled habitat for the snake in and around Marana using soils and elevation. She noted that Phil considered the best habitat for the snake to be in Pinal County, with some decent quality areas in northern Pima County, but not farther south than Avra Valley Road. Leslie said they would bring copies of the TSS habitat model to the next meeting and she would talk to Phil about the likelihood of it being on any of the Avra Valley holdings.

- Ground snake

Leslie mentioned that the taxonomic status of this snake was uncertain and required genetic investigations. Trevor confirmed, saying there is some difference between forms of this snake but not as much as with the TSS. Leslie noted that Phil had developed a model for this snake also, based on soils and landform. She would talk to Phil about the likelihood of the snake occurring in Avra Valley and copies of the habitat maps would be available at the next meeting.

- Needle-spined pineapple cactus

Leslie referred to the spreadsheet that had been handed out and which evaluated whether each of the uncertain species was likely to be listed based on the USFWS listing criteria. Leslie went through each factor and said that the conclusion was this species is not likely to be listed in the next 5 to 10 years.

Dennis asked about the burn history in the planning area. Ann noted that some Avra Valley parcels are burned for tumbleweed. Michael said he would see what he could find out about burning in these areas.

The consensus of the group was that no one present had issues with the categorization of the cactus, but we needed to get Mima's input.

- Pima Indian mallow

Leslie went through the evidence on each of the listing factors for the mallow and the conclusion that this species is not likely to be listed in the next 5 to 10 years. Ken suggested that we could ask Dave Bertelsen to confirm this assessment. Trevor asked whether the USFWS had this information, as it is a Species of Concern. Ken replied that USFWS has very little information on most SOC species. Ken wanted to get Mima's input in the threat posed by buffelgrass. Trevor asked who was qualified to offer a second opinion. Ken suggested Steve McLaughlin, Curator of the Herbarium of the University of Arizona.

2. Annexation

Michael told the group that the City was still trying to sort out the cost and resources required if the planning area was expanded to include potential annexation areas. He explained that the east and southeast portions of the potential expansion area were the most likely candidates. Rafael put up a map showing the diversity of species across the Tucson region. There are a few hotspots in the southeast, particularly near Cienega Creek. Rich said he would really like this area addressed. Leslie noted that there were also hotspots along Sabino and the Tanque Verde Creeks, but these areas were also mostly developed and therefore posed less concern with respect to potential ESA issues.

3. Field Trip

It was decided that the fieldtrip on the morning of September 30th would be to the Southlands. Suggestions were made to start on the west side, where there are areas of higher quality habitat. Another suggestion was to concentrate where development was likely to start, but we don't know how development will progress in the Southlands.

SWCA would do a pre-tour of the area and select a good route. Based on this route a meeting

location near the Southlands would be identified. People could either meet at the City Planning Department at 7am or at the pre-arranged meeting site at 7:30am.

Everyone would bring their own lunch and the City will provide vehicles for the trip, coolers for lunches, and water.

Action Items:

- City will put the Southlands and Avra Valley reports on the HCP website and color maps will be provided to the TAC members.
- Dennis will check into whether or not AGFD could provide a map of the planning area showing where the female pygmy-owl had dispersed last year.
- Dennis said that he would give that some thought as to whether the Avra Valley planning area should be changed to 'present' for CFPO.
- Leslie will talk to Phil about the likelihood of the ground snake and/or the Tucson shovel-nosed snake being on any of the Avra Valley holdings.
- Michael will check into the burn history in the planning area.
- Michael will continue to look into the potential for expanding the planning area to include probable annexation areas.
- City would provide meeting location and field trip details to the TAC prior to the trip.