

HABITAT CONSERVATION PLAN
Technical Advisory Committee
Tuesday, August 9, 2005 1:00 – 4:00pm
Arizona Game and Fish Department Conference Room
555 North Greasewood Road
Tucson, Arizona 87545-3612

MEETING SUMMARY

Attendees: Guy McPherson, Mima Falk, Ann Phillips, Trevor Hare, Linwood Smith, Rich Glinski, Dennis Abbate, Ralph Marra and Bruce Prior, Marit Alanen (USFWS), Frank Sousa (City of Tucson -Transportation), Cathy Blasch (AGFD), Michael Wyneken (City of Tucson – Planning), Leslie Liberti (SWCA), Jessica Lee and Ken Kertell (SWCA)

1) Update on Recent SAC Meetings/Upcoming Meetings

a. *Scheduled SAC Meetings:*

- **August 17**, 3-5 pm, @ AGFD. Tentative Topics: Feasibility of selected funding opportunities.
- **August 31**, 3-5 pm, @ AGFD. Tentative Topics: Southlands conservation strategies and implementation/funding options.
- **September 21**, 3-5 pm, @ AGFD. Tentative Topics: Southlands conservation strategies and implementation/funding options.
- **October 5**, 3-5 pm, @ AGFD. Tentative Topics: Avra Valley conservation strategies and implementation/funding options.
- **October 19**, 3-5 pm, @ AGFD. Tentative Topics: Recommendations for Santa Cruz River.
- **November 2**, 3-5 pm, @ AGFD. Tentative Topics: Monitoring and Adaptive Management Program and implantation/funding options.
- **November 16**, 3-5 pm, @ AGFD. Tentative Topics: Monitoring and Adaptive Management Program and implementation/funding options; Next steps – beginning Phase 2 of the HCP process.

b. *Scheduled TAC Meetings:*

- **August 23**, 1-4 pm, @ AGFD. Tentative Topics: Tucson Water presentation; covered activities for Avra Valley; begin discussion of conservation strategies for Avra Valley species.
- **September 13**, 1-4 pm, @ AGFD. Tentative Topics: Continue discussion of Avra Valley conservation strategies.
- **September 27**, 1-4 pm, @ AGFD. Tentative Topics: Southlands conservation strategies and implementation/funding options.
- **September 21**, 1-4 pm, @ AGFD. Tentative Topics: Southlands conservation strategies and implementation/funding options.
- **October 11**, 1-4 pm, @ AGFD. Tentative Topics: Recommendations for Santa Cruz River.
- **October 25**, 1-4 pm, @ AGFD. Tentative Topics: Monitoring and Adaptive Management Program; feedback from SAC on conservation program, especially funding and implementation issues.
- **November 15**, 1-4 pm, @ AGFD. Tentative Topics: Monitoring and Adaptive Management Program; feedback from SAC on conservation program, especially funding and implementation issues.
- **November 29**, 1-4 pm, @ AGFD. Tentative Topics: Next steps – beginning Phase 2 of the HCP process.

2) Old Business

a. *Meeting Minutes – June 22, July 12, and July 26, 2005 Minutes*

Leslie noted that the SAC had approved the June 22 joint meeting minutes. Michael asked if anyone had comments to any of the meeting minutes. No one had comments or objections. Trevor said that the SWCA email account spam filter is sending an error message whenever he sends an email out on the listserv. Leslie said that the SWCA employees are getting the emails, but will look into the problem

b. *Action Items from Previous Meeting*

Cathy said that yellow-billed cuckoo (YBC) surveyors (including herself) went to the Simpson Farm site and did find birds. She explained they didn't aggressively look for nests because they did not want to disturb any possible nests. The surveyors are going to go out a couple more times in the near future. She said it was Scottie's opinion that it can be assumed that YBC are nesting, and if they are not, they probably will. Cathy said they used a recorded YBC call. She also contacted Robb McGill for more information. Ken asked how large of an area they traveled in the YBC survey. Cathy said they traveled about two kilometers, basically walking until they heard an YBC. Ken asked if Scottie thinks there is more than one bird. Cathy thinks the multiple birds heard last time were likely to be one curious bird following the surveyors. She said they are assuming there is at least one bird. Cathy noted that there are a lot of cowbirds near the Simpson Farm site, thus it may be a "sink" for YBC in the area. She said that the Tucson Audubon Society is hoping to get a graduate student out there to look at nest predation issues.

Leslie said that Norris Dodd (AGFD) had responded back this morning regarding wildlife-safe roadways. He sent a report that focused on research he did regarding elk crossing Highway 260. Trevor said that the study/report likely was intended to minimize human mortalities, rather than animal mortality. Norris suggested contacting Siobhan Nordhaugen at ADOT, because she led the wildlife linkages working group. Trevor said that I-19 and Sonoita Highways might be roadways that are studied next. Leslie passed out handouts of a portion of Chapter 4 of the Pima County Environmentally Sensitive Roadway Design Manual. Leslie said she was surprised that it is not very specific and that she just pulled out the pages of the manual that were relevant to what TAC has been talking about including biological assessment/surveys and mitigation options. She said the preferred approach to mitigation is to avoid it, and if it cannot be avoided, then re-vegetate disturbed areas. She said there are not really specific guidelines for studying how different crossings impact species. Trevor said that the working group is looking at making crossing guidelines, but they are focusing on large mammals. He said that Mike Ingraldi is doing a study on the flat-tailed ground lizard to study road crossings and is working with ADOT. Trevor said someone at the UA is studying the highway between Phoenix and Gila Bend. Leslie suggested Frank maybe able to help pull this information together.

c. *Topics held over*

Southlands conservation strategies was the topic held over from the last meeting and will be continued as “new business.”

3) New Business

a. *Southlands Conservation Strategies*

Leslie said she brought the same maps the TAC worked on in the last meeting, including an additional map showing proposed and designated ERZ washes that have current protection. Leslie said that she hasn't received the cacti polygon models from Marc yet from his last surveys in the Southlands. Mima said she was surprised to hear this because Marc told her that he had sent the file to Leslie a while ago.

Leslie said she received information about Pima County zoning, but that she didn't hear back from the County about the sunset clause. She said that she doesn't know for sure if the zoning is going to stay and/or how long it is going to be what it is.

Trevor asked what the “ERZ” designation accomplishes. Michael said it protects the 100-year floodplain. Frank said that it protects riparian habitat within the 100-year floodplain only. Frank said that the ERZ designation protects washes with as little flow as 100 cubic feet per second (cfs). Frank noted there are some shallow, wider washes in the Southlands. He said that there is a lot of sheet flooding in the Southlands, and suggested there could be a battle over whether the flow in these is legally appropriable or not. Leslie explained that the idea of putting water in a detention basin, to provide for habitat enhancement, could run into a water rights issue. Frank said the City might have to apply for appropriable water rights through the Arizona Department of Water Resources (ADWR), since there might be someone downstream with senior water rights that could get upset. Frank said the water has to be used within two years or the permit could be revoked. Frank said the water rights in the Southlands are a tributary of the Colorado River (it flows into the Santa Cruz River, which flows into the Gila River, which flows into the Colorado River), so technically people downstream could object. Ann said she thought a standard detention basin, one that is a flood control requirement, doesn't require a permit. Ann said that the TAC doesn't want to recommend retaining water in the Southlands anyway, but rather only take some of the water off the new hardscape and divert it into the waterways to support new/existing riparian areas. Ann said the City wouldn't let someone put water into a wash that exceeds historical flow conditions of that particular wash. Frank said it comes down to whether the action would cause an adverse impact to the wash, and that technically it could be allowed. Frank said that development creates more water because when it rains the water cannot soak into the ground, and it is questionable who owns this water. Ann said that whenever water stands in a detention basin habitat would develop. Trevor asked about the hydrological challenge of getting water off of hardscapes into detention basins, and out of detention basins into washes. Frank said the problem is that water coming out of detention basins doesn't have sediment in it, thus when it enters the wash it gains energy and picks up lots of sediment, causing erosion. He said that upland detention basins are difficult for that reason, even if you manage the velocity of the water coming out of the basin, it will pick up sediment. Ann said that this could be fixed with grade control structures as the water travels down the wash. Frank agreed, and noted that you can also buffer it from the discharge points. Frank said the idea is for subdivisions to start putting more of their

detention basins internally, rather than on the outskirts, so those impacts are abated on the inside. Ann said there is a lot of room for creativity, and that there isn't one best model to fit all washes. Trevor agreed saying that each wash may have to be handled differently. Frank said that hopefully, like in the HAMP area, the detention basins could be handled on a regional basis. Ann said that the Kino basins are a regional detention scheme that has been specifically constructed as habitat. She said that if this is done in the Southlands it could be part of a regional retention scheme. Frank said that this could be possible, as long as there is a place to let the water out. He suggested there needed to be a good set of ground rules created first.

Leslie said that maybe the TAC should take a step back and look at the broader question of where the different areas are and how these areas need to be treated. She said that, at the last meeting, two discussions happened. She said that one discussion was focused on protecting the washes, while the other was focusing on protecting the uplands while creating new riparian habitat by redirecting water from the hardscape. Leslie said that both strategies have strengths and weaknesses. Trevor noted that there is an existing seed bank is under existing washes. Rich pointed out that seed banks could be introduced. Trevor said that is true, but the naturally occurring seed banks are better.

Leslie said that the riparian areas are important for pale Townsend big-eared bat (PTBB) and cactus ferruginous pygmy owl (CFPO), while the uplands are important for both the Pima pineapple cactus (PPC) and needle-spined pineapple cactus (NSPC). Mima noted that she hasn't seen Marc's report on his latest cacti surveys, which includes the maps. Leslie said that she asked him to send the report to Mima so she could provide feedback. Mima said she (and Marc) wanted to caution against areas in the Southlands being marked as "higher probability" cacti habitat, because she doesn't want people to think those areas not marked as such are not habitat and/or have no plants or are not a seed bank. She said that somehow we have to walk a fine line between what is there today verses what might have been there and what seeds might be there underground. She said that she feels uncomfortable drawing lines on a map. She said she wants to see Marc's final report before commenting further. Trevor asked because the TAC has no idea what our development footprint is going to look like in the Southlands, whether Mima felt comfortable with these acres of land that will be protected for PPC, rather than naming just a few small parcels (maybe three square miles in different areas that attempt to link to the west) for conservation. She said that is a difficult question to answer. She said that at the last cacti meeting for the Pima County MSCP, it was discussed that the areas that are the most valuable are the areas where the cacti are today. She said that the TAC need to consider those areas for protection, while also keeping connectivity in mind because PPC move across the landscape. Trevor said that in the next 20 years, developers are going to be out there looking around and getting CFPO and PPC surveys done. By then, we will have a good idea of where the high PPC concentrations are. He said his question is, do we go ahead and identify the off-limit areas now so when State Trust land gets sold we can preserve those acres, or do we regulate a percentage of acres that need to be preserved. Mima said it should be a mix of both. Trevor said it is difficult to plan without knowing what the development footprint is. Leslie said that this is a long-term planning project and that right now we are just working to have a preliminary draft HCP by the end of the year. Leslie said there is a lot of work to do, including looking at local and regional planning. Leslie wants the TAC to identify what they really need for the preliminary HCP, what still needs to be done to a

final HCP, and specifically to identify the questions that will have to be addressed when the City wants to finalize their HCP. Leslie said for instance, there are a lot of unknowns about the cacti. Mima said that one thing that the TAC may want to consider is that conservation might be better achieved in the long run by conserving land in large blocks outside of the Southlands. Mima said the only currently long-term large area protected area is Santa Rita Experimental Range south of the Southlands. Rich asked Mima if she is considering the cacti doomed in the Southlands. Mima said she is not saying that, but rather is saying that TAC needs to think outside the box and think about conserving outside the area. Rich asked Mima about the genetic diversity of PPC. Mima said there is a lot of unknowns, and that there has been so much lost along the I-19 corridor already. Rich said that the cacti are going to be considered a constraint until we have more information on genetic information. He felt that riparian areas are more of an opportunity. He said the only constraint with riparian areas is to make sure that there is adequate drainage. He said that is why the TAC should focus on protecting the uplands while enhancing the riparian areas. Ann noted that in Sahuarita she can find PPC twenty feet away from a major wash. She said the upland/riparian divide isn't that clear. She said that perhaps a conservation easement should be set up to put heavy restrictions on development. Mima said that is true that you can find PPC near washes, but is not that common because the riparian areas tend to be very narrow with steep slopes, and the uplands are larger in area. Ann asked Mima if there is anything mutually exclusive about the narrow riparian areas and the larger uplands? Mima said that yes, there are PPC found next to floodplains, but that it is not the preferred area. Mima said it also depends on the distance from the wash. Mima said that the majority of the PPC are going to be found outside of the areas of the protected washes. Leslie said that in a perfect world, we would like to see a set of alternatives to meet the needs of PPC. For a moment ignoring the fact that Arizona State Lands Department (ASLD) owns the majority of the Southlands, and assuming that the City could mitigate entirely with the Southlands, Leslie asked what kind of configuration of habitat with nodes and connections would work within that sub-area. She said that the other approach is to concentrate on protecting riparian habitat in the Southlands and mitigating for PPC off-site. She asked the TAC what they thought was the better approach. Mima said this is the time to ask the question of what we would want in a perfect world. Trevor asked Mima how important is the Southlands are to protecting through mitigation fees the populations in the Altar Valley. He asked if we need more money to come out of the Southlands to buy credits on the Palo Alto Ranch, or another mitigation bank set up in the Altar Valley. Mima said she doesn't know. Trevor said that a lot of PPC habitat is ranch land that isn't going to be developed in the Altar Valley. He said that maybe we need more mitigation fees coming out of the Southlands to help the cactus in that area. Mima said that what the TAC needs to remember is that most of the land in the Altar Valley is state trust land, thus the mitigation would have to be done on private land. Ken asked Leslie if she is talking about setting up three alternatives, one where we mitigate for impacts of development in areas of the highest density of cactus on-site, another being completely off-site mitigation, and the third being something in-between depending on what the City of Tucson wants to do in terms of phasing in their development. Leslie said that is basically it. Leslie said that she thinks TAC should identify the two extremes, and then figure out how to integrate between the two for a combined on-site and off-site mitigation approach.

Michael thought that this was the way to go. Michael said that the different jurisdictions are meeting to discuss a joint land use planning effort for the area from I-10 to the Santa

Rita Experimental Range and from I-19 to the Sonoita Highway. He said those meetings are moving along and hopes that by the end of the year there will be a scope for that planning effort. Michael said he sees this as a perfect opportunity to come up with a range of different kinds of conservation scenarios that could inform the larger planning process. As long as there are alternatives there, he thinks that it could work well. He said that this is something he has liked about the HCP, that we are far ahead of the game and will be able to propose alternatives that can be worked into the larger planning process. Trevor said that even if we do complete off-site mitigation and give up on the cacti in our planning area, we would still have to keep in mind the connectivity between the experimental range and toward the north and west. Linwood asked Mima what she thought the off-site mitigation opportunities were in the Southlands for the eastern population segment, because he doesn't think there is much opportunity. Mima said that, so far, they don't have a good sense of what is out there on the private property. She said that unless the property owners go to Pima County with interest in knowing what PPC are on their property, there is little opportunity to get out there on that land. Trevor said there are few habitat protection priorities in that area unfortunately. Mima agreed. Trevor said there could be another bond in the next five years that isn't constrained by the map that the Nature Conservancy came up with. Trevor said that that gives us some time to start identifying those areas now, and maybe have the County out there inquiring on properties that may be important in 5-10 years. Mima said that she would like to think there are opportunities. Leslie said that she suggests an approach to this would be to start by assuming 100 percent off-site PPC mitigation, and then focus on the other species. Mima can then help identify what the off-site mitigation opportunities are and also what would need to be done to completely mitigate for the PPC within the Southlands.

Leslie said that the connection to the Santa Cruz River (SCR) is important and that over time there have been a lot of diversions created. She said that the washes do not connect to the SCR directly west of the Southlands. Trevor suggested Phil knows more about these riparian areas from his toad studies. Leslie showed pictures of wash crossings in the Southlands over Nogales Highway and Old Nogales Highway. She walked the TAC through the pictures and noted where they were located on the photo map of the Southlands washes.

Frank said that sub-watersheds have generally been ended at Lee Moore Wash diversion, which parallels the SCR. Ann asked how the washes flow under the Old Nogales Highway. Frank said there are culverts at all of them. Leslie said she has pictures of all the culverts. The TAC members gathered around to look at Leslie's pictures along with the Southlands watershed map, trying to get the larger picture of how the Southlands washes connect to the SCR. Leslie showed pictures of Franco Wash, two unnamed washes, Flato Wash and Pretty (Petty) Wash. Leslie said that the Franco Wash, from where it leaves the Southlands, is fenced off and appears to be an area with active grazing. Ann said the one of the challenges with trying to protect washes in this area is that they all cross periodically through private property. Leslie said yes, and mentioned that the two northern washes in the Southlands also run through the Swan Southlands, and thus could be impacted by that development as well. Leslie said one of the unnamed washes, she referred to as Unknown Wash 2, is a small watershed and she said she couldn't find where it crossed the Nogales Highway. She said that from Flato Wash south, all the washes flow into the Lee Moore Wash diversion, then into the SCR. She said that most of Lee Moore Wash diversion is on ASARCO-owned lands.

The TAC members were concerned about the cement drop in the Lee Moore Wash diversion after it traveled under the Nogales Highway, and worried about it being friendly to wildlife. Leslie showed a picture from Unknown Wash 1 with a non-wildlife friendly culvert under the railroad. Leslie said that ASARCO owns the downstream portion of Pretty (Petty) Wash and one Fagan Wash and that there is a stock tank on it as well. She showed a picture of how erosion from these washes was cutting away at the Old Nogales Highway. Leslie said that the culvert of Lee Moore Wash diversion under Nogales Highway and the railroad is very wildlife friendly and showed the group a picture of it. Frank said that the soils typical of the area are a loam that is easily eroded when vegetation is disturbed. Frank said that Pima County Flood Control District (PCFCD) is doing a study of Lee Moore Wash diversion, and he said that he just got the preliminary scope yesterday. Leslie said that the City and Sahuarita are going to discuss annexation boundaries, including the rural/urban interface soon. Ann said that if TAC could establish some principles, then the City could go to the Sahuarita meeting with these principles and hopefully educate Sahuarita. Leslie said that the City need to make this conservation/open area valuable to people, rather than just having the individual washes protected.

Rich said that some of the southern areas that are degraded can be restored, and that it would be a mistake to trade off any of the riparian areas. Trevor asked if the bosque areas came up off the SCR up into the washes. Frank said that mainly the bosque has stayed along the SCR because they need a lot of water. Trevor said it would be interesting to see how much land the ERZ protection takes out of the footprint of development. The group considered the zoning in the Southlands. Rural/homestead is the most common zoning designation in the Southlands. Rural/homestead is 4.1 acres in size.

Ann led a brainstorming session to come up with a set of principles that TAC could recommend to the City. The group listed the following set of principles that will guide TAC in recommendations:

- Maintain all ERZ wash protections and their buffers (Frank said there is a 15 foot buffer along these washes, mainly to keep construction personnel out of washes);
- Identify adjacent regional open space that will not be developed and the connections to it (ASARCO, Santa Rita Experimental Range, Tucson International Airport, City and County owned parcels, Raytheon, etc. any place that will stay open and not developed);
- Create broad protected areas that have connections to regional open space; these areas should have a range of habitat types that can host threatened and endangered, and any other potentially vulnerable species (utilize cacti maps/info as well as riparian species);
- Identify existing urban based current/future development constrains and opportunities including stock tanks and other such features;
- Preserve old tanks, but also have caution when adding new ones;
- Address potential off-site native/non-native species concerns;
- Identify economic implications where conservation will increase value of lots/homes, so the City can use low-density, high priced lots to added an additional buffer of open space;

- Identify economic implications of open space amenities in buffers around conservation land;
- Create regional flood management retention/detention approaches that compliment with conservation land;
- Identify other open space amenities such as parks, retention/detention basins;
- Anticipate future endangered species (ie: rufous-winged sparrow);
- Identify the range of habitat types that could emerge;
- Identify availability of water resources and how it is delivered (stormwater, effluent, etc);
- Address species-specific management needs – how are people going to be interacting with these areas and are there species that need active managing (burrowing owl)?
- Maintain connectivity both with the uplands and riparian areas (within the Southlands, as well as how it connects outside the Southlands);
- Create specifications for allowed development standards (no invasive, noxious species, have preference for native species);
- Address these conservation principles first then use them to build plans for other city sectors/activities (transportation, development zones, infrastructure, etc.).

On the topic of retention/detention basins, Frank said that there are hundreds of privately-owned retention basins in the City, and they are turning into a nightmare to for the City in terms of health and safety issues (mosquitoes) as well as how difficult they are to maintain. He said that the City would only take ownership of them if they are one acre or larger. Ann suggested that the TAC think of other principles that apply to the SCR corridor and Avra Valley lands, so the three planning areas would have the same set of principles. Ann drew a sketch on the board depicting the concept of having a core conservation area, then a multiuse buffer with an educational component, then true recreation on the outside. Rich questioned this approach if the goal was to preserve narrow washes. Frank said that according to the Harris map, 7,300 acres of the 38,000 acres in the Southlands are protected washes (approximately 20%). Trevor said that they might need to preserve a mile-wide swath of land around the major washes. Michael noted that this would eliminate most of the Southlands for development. Trevor said a 20 percent set aside isn't that big of a deal when the County is requiring them to do 80 percent. Michael said the City is requiring 30 percent, including the wash habitat envelopes, set aside in the HAMP. Leslie said that brings up a question about these broad protected areas; whether we want to be focusing on Harris riparian areas by spreading it out the conservation across the Southlands, or rather conserving the southernmost part of the planning area and having a nice core area with less-intensive areas directly adjacent. Trevor is concerned about doing a trade-off to preserve the southern portion of the Southlands for giving away the north as a sacrifice zone without having the guarantee that the wash is protected both up and down stream. Leslie said that is something where Phil could be really useful on his ideas of environmentally sensitive development. Trevor agreed, since he is doing work in reconciliation ecology. Leslie said that his thoughts are on how to do development so there are still areas of habitat, instead of focusing on trying to preserve large areas in the northern part of the Southlands. Leslie said that maybe an alternative could be to do a bigger set aside in the southern portion of the planning area, while using some of Phil's ideas for the northern area. Trevor said that as long as we have the principles and guidelines in place when development comes, someone would have to go through each parcel on a smaller scale and make these decisions. Leslie said that we would need to have some way to estimate

the total impact across the board because that will be the basis for demonstrating the adequacy of the plan to USFWS. Trevor said we could set up a scenario of “ands and ifs.” Leslie said that in order to get to that point, it will mean getting involved in some of the other planning processes, and in the short term there will be a lot of questions. But, she said she agrees with Trevor that these principles will establish the framework and the other details will have to be added later.

Rich asked if there are areas we can identify as sacrifice areas. Trevor asked Rich if he felt comfortable doing that. Rich said he wasn't sure, and that he is thinking about the regional connections, and is looking at the distribution of the cacti all over. Rich asked where do we make the connections. Rich said that there are areas that we can say that there is little probability for CFPO and where the soils are too poor for PPC; in other words, areas where no one is going to stand up and fight for. Rich said, for example, like the area next to the freeway. Rich says he thinks the cacti are the biggest deal. Leslie said it makes sense to identify positive areas and negative area priorities. Rich said this approach is difficult to do this because no one wants to draw the lines because there are too many unknowns. He said that all we can do is plot the risks. Rich says he would fight for the southern portion the most. Frank said that floodplain designation is restricted but not protected and that developers can still develop in the ERZ area as long as it doesn't cause adverse impact to anyone. Leslie explained they could develop in the riparian areas if they get a permit. Frank said he would like to see an envelope-based ordinance starting with the Harris maps and revising them using the ortho images. She noted that the City is going to take new aerial photos next year.

Leslie said there have been two discussions about how to identify priority areas. She said that one discussion is focusing on protecting the southern watersheds; while the other is focused on using the Harris maps to protect riparian habitat throughout the planning area. Frank said that the southern portion has water flow issues, where the washes fragment a lot. He also said the soils in the area are of poor quality. Ann said this could be an argument for conservation so no one has to go in and attempt to manage those water issues. Frank said that 1936 aerial photos were taken and are stored in the National Archives (an incomplete set is available in Tucson at the Natural Resources Conservation Service). Frank said that many of the areas in the Southlands have long been grazed, and some have remained vacant for a long time. Frank said many of the areas haven't changed except for the loss of vegetation. Ann said she is concerned, but she doesn't think TAC should become immobilized because we cannot say exactly what the Southlands will look like in 10 or 20 years, and even if we knew everything about these species and could still be wrong. Rather, our focus should be it is about keeping the elements of resiliency on the land like keeping the water supply, sediment transport mechanism, seed source and enough room to allow whatever is going to happen, naturally to happen. Rich said you can't control the water or the soil, but can control the seeds and the space, so you have half of what you can control. If you can't have water and stable soils, what do you want to preserve it for? Ann said you can't control the average rainfall, but it is going to fall and you can capture and direct it. Frank thinks grazing has had a significant impact in the Southlands, which has only been intensified by the drought.

Leslie said we have these principles, and asked the TAC where they want go with them. She said there needs to be more in depth detail for what we mean and the components

we will need to get there. Then, she said, there is the questions of how are we going to identify priority areas for conservation and areas for development.

Leslie said, because there is not a GIS person in the Planning Department, this is a good time to switch to Avra Valley. The next TAC meeting is the Tucson Water presentation. Leslie things this is a good time for the TAC to do some thinking about what these principles mean and to do a little mapping of what these things would look like. She thinks it may be a good time to switch over to the Avra Valley planning area while we take time to think about these questions and how they apply to the Southlands.

4) Call to the public

No members of the public were present.

5) Next steps/Future meetings

Leslie said that at the next meeting the TAC would shift gears and start thinking about Avra Valley. She said that Ralph Marra would give the "Tucson Water 50-year Plan" presentation. Ralph suggested the TAC read the SAC meeting notes from the Tucson Water presentation on May 3 so they can anticipate questions they might want to ask.