BIOLOGICAL ADVISORY TEAM

OF THE

SOUTHERN EDWARDS PLATEAU HABITAT CONSERVATION PLAN

MEETING 8 MINUTES

DATE: August 25, 2010 LOCATION: Bass Pro Shops Inc. 17907 IH-10 West San Antonio, TX 78257

1. Call to order - Richard Heilbrun, Texas Parks and Wildlife Department (TPWD)

Richard Heilbrun called the meeting to order at 9:11am.

2. Vote to revise July 7, 2010 official minutes with new revisions

Richard Heilbrun called for a motion to approve the revised draft minutes from the July 7, 2010 meeting.

MOTION (Jayne Neal): Approve the draft minutes from the July 7, 2010 BAT meeting, as revised. SECOND (Justin Driebelbis). VOTE: Voice vote carried unanimously.

3. Review and approve minutes from July 28, 2010 BAT meeting.

Richard Heilbrun asked BAT members for any additional comments or revisions on the draft minutes from the July 28, 2010 meeting. No additional comments were received.

MOTION (Jayne Neal): Approve the draft minutes from the July 28, 2010 BAT meeting, as revised. SECOND (Justin Dreibelbis). VOTE: Voice vote carried unanimously.

4. Public comments (3 minutes per speaker)

Richard Heilbrun called for public comments. None were received.

5. Announcement of next 6 BAT meeting dates

Richard Heilbrun announced the next six meeting dates for the BAT, which are: September 10, September 24, October 8, October 20, November 4, and November 17. Mr. Heilbrun is arranging presentations from William Conrad (City of Austin Wildlands Conservation Division Manager) and Deirdre Hisler (TPWD Government Canyon) in October to discuss issues related to public access and recreational impacts on preserves. He also reported that the U.S. Fish and Wildlife Service asked for time in September to present information on mitigation ratios and

strategies, and that Wendell Davis (Wendell Davis & Associates; socioeconomic sub-consultant to Loomis Partners) will present information at the September 10 meeting on population and land use projections for the SEP-HCP region. Tom Hayes (BAT member) asked to have access to the source data for the projections.

6. Discussion and possible action on how to approach management and monitoring

Richard Heilbrun referred BAT members to guidance materials on management and monitoring provided by Loomis Partners. Amanda Aurora (Loomis) explained that management and monitoring practices may change over time under an adaptive management program, and recommended that the plan focus on defining the desired outcome rather than on prescribing specific practices. Allison Arnold (USFWS) noted that from the Service's perspective it is important to consider how much, where, and when take will occur in the design of the management and monitoring program. She also stated that the management and monitoring program should be as specific as possible with respect to guiding principles, but remain flexible with respect to specific management strategies. She emphasized the need for minimum standards for management and monitoring, and questioned how the BAT could define a desired outcome when the total amount of anticipated take is not known. Jayne Neal (BAT member) suggested that it might be possible to define standard or criteria for habitat condition in the preserve system and identify acceptable management practices that could be used to achieve those standards. Allison Arnold suggested that the BAT identify ways to measure the conservation value of a preserve.

The BAT discussed whether the management and monitoring plan would apply only to preserves or if it would also apply to portions of the Plan Area outside of designated preserves. Allison Arnold indicated that the plan would only be responsible for monitoring land within the preserve system, but could also monitor other portions of the Plan Area if desired. Tom Hayes strongly recommended a broad monitoring program that tracked the status and condition of areas outside of the preserve system. Clifton Ladd (Loomis) suggested that the adaptive management program could direct future conservation efforts within the context of the plan. He also explained that, at a minimum, monitoring needs to be sufficient to determine compliance with the terms of the permit and determine how well land is managed to protect the covered species.

Richard Heilbrun suggested that the BAT focus on identifying management outcomes and tools, and monitoring standards for preserves and for the Plan Area generally. Jayne Neal noted that the BAT should be realistic about the amount of funds available for management and monitoring and prioritize activities to make best use of limited funds. BAT members generally agreed that priorities for the conservation program should be: 1) habitat acquisition; 2) active management of preserves; and 3) monitoring. BAT members also generally agreed that management and monitoring should first focus on the covered species, then address other species categories. See the attached worksheet from the meeting with additional BAT notes on management and monitoring criteria.

Jayne Neal suggested that golden-cheeked warblers (GCWs) might use habitat in the Plan Area that is not generally used elsewhere in the range and Allison Arnold added that other regional plans may not be applicable models for the SEP-HCP. Ms. Neal suggested that it may be possible to create good GCW habitat without reaching the same standards that are set in other areas. She also noted that the plan should not be held responsible for bird behavior and other factors not under the permittee's control. For example, the habitat may appear to meet all the

criteria of good GCW habitat, but may not be occupied for any number of reasons, including the failure of GCWs to return from wintering grounds.

Tom Hayes suggested that monitoring activities may not be very expensive if local universities and other partners are used, and indicated that remote sensing data is easily accessible. Jackie Poole (BAT member) responded that remote sensing data does not give the same level of information as on-site data, and Jayne Neal noted that her past experience with using students to help implement a monitoring program was not very successful. Annalisa Peace (CAC member in attendance) suggested that local jurisdictions can adopt ordinances or other requirements to collect monitoring information.

The BAT discussed management and monitoring priorities for the GCW and brainstormed ideas for appropriate standards and criteria. BAT members identified the following considerations: the need for good baseline data; an assessment of threats to the species and habitats (including encroachment on preserve boundaries); specific management plans for individual properties; the pros and cons of productivity vs. occupancy monitoring; consistency with recovery plans; the importance of keeping a broad range of management tools available for use; and types of important management tools. Jackie Poole recommended that there be a requirement for monitoring reports to be submitted to the appropriate entities.

Allison Arnold cautioned that management standards based on species productivity might not be achievable due to factors outside of the plan's control and suggested that the standard be described in terms of maintaining or improving the conservation value of the preserve.

BAT members generally agreed that the GCW habitat definitions prepared by TPWD (Campbell 2003) were generally appropriate as a minimum standard for suitable habitat, and that management standards should strive to achieve habitat conditions that are identified by TPWD as "Habitat Types Where Warblers are Expected to Occur." Allison Arnold noted that the plan would only be responsible for maintaining the current level of conservation value, and not for enhancing the conservation value of a preserve.

Jayne Neal suggested that the TPWD habitat definitions may not be completely accurate for the SEP-HCP region, and she noted that some occupied GCW habitat around Bexar County had a shorter canopy and smaller Ashe junipers than described for typical habitat. Ms. Neal also noted that GCWs occur in areas that have canopies that are almost completely composed of juniper and live oak

With respect to monitoring for GCWs, the BAT discussed various considerations related to monitoring habitat conditions vs. monitoring bird responses. The BAT also discussed compliance monitoring vs. effectiveness monitoring. The BAT generally considered setting standards for annual compliance monitoring; monitoring of threats (herbivory, invasive species, habitat loss); monitoring of habitat conditions (structure, composition, recruitment); productivity and territory surveys; use of sampling vs. complete coverage of all properties; monitoring for habitat changes due to climate change;

BAT members generally agreed that different kinds of monitoring should occur at different intervals; compliance monitoring should be completed annually, habitat monitoring completed less frequently, and species monitoring completed even less frequently. Julie Groce suggested that certain types of monitoring may be needed to inform management decisions, and that the plan could promote research by other entities on preserve lands to help address current data gaps. BAT members suggested that the monitoring program should also be adaptive and that reporting of monitoring results should be required.

With respect to adaptive management, Allison Arnold indicated that the plan can include an amendment process that limits the scope of proposed changes to only certain aspects of the plan.

BAT members discussed management and monitoring standards for the black-capped vireo (BCV). Several BAT members agreed that many of the standards described for the GCW would also apply to the BCV. Allison Arnold noted that the intensity of management activities would be greater for the BCV. BAT members generally agreed that the habitat descriptions prepared by TPWD for the BCV were an acceptable standard. BAT members identified the following management considerations for the BCV: cowbird trapping; brush management; prescribed burning; predator management; the need for outreach to preserve neighbors; and similar measures (see attached worksheet). Jayne Neal and other BAT members also noted that remote sensing would not be as useful in identifying BCV habitat as it would likely be for GCW habitat.

With respect to monitoring for the BCV, BAT members identified the following considerations: more frequent monitoring may be needed to track changes in BCV habitat; habitat structure is a key component in BCV habitat; erosion and sedimentation related to intensive land management; natural vs. human-affected predation rates/sources; feeding songbirds on adjacent properties; and effectiveness monitoring for best management practices.

The BAT took up discussion of karst management and monitoring priorities. Important considerations identified by the BAT included: the draft karst recovery plan; controlling access to caves; protecting surface and subsurface drainages; water quality controls; the TCEQ optional enhanced measures for karst protection; fire ant control; infrastructure corridors and recreational uses of the preserve system; and education and outreach to neighbors.

Annalisa Peace noted that the EARIP is working on water quality standards that may be applicable to terrestrial karst habitats. BAT members generally agreed that the management and monitoring criteria in the draft karst recovery plan were applicable to the SEP-HCP, with the addition of monitoring for the effects of repeated visitation. Allison Arnold stated that the Service does not want recreation in the preserve system and that human visitation should be limited to that which is necessary (rather than just preventing excessive use). She also stated that monitoring for white-nose syndrome is a regional priority and preventing the spread of this disease is important to the general health of caves and cave ecosystems.

7. Discussion and possible action on Mitigation Ratios

Topic tabled for later meetings.

8. Introduction to Participation Process

Topic tabled for later meetings.

9. Future agenda items and next meeting - Richard Heilbrun, TPWD

Allison Arnold indicated that the Service would be presenting minimum preserve standards at the late September meeting.

10. Adjourn

Richard Heilbrun adjourned the meeting at 1:05pm.

Attachments:

• BAT worksheet on management and monitoring criteria.

BAT MEMBER SIGN-IN SHEET

	BAT MI	BAT MEMBERS
	NAME	SIGNATURE (IF PRESENT)
_	Heilbrun, Richard	
	(CHAIR – Texas Parks & Wildlife Department)	Supplied Now Now
2	Collins, Valerie	
	(Pape-Dawson Engineers)	
3	Dreibelbis, Justin	
	(Texas wildlife Association)	Lat Hour
4	Gluesenkamp, Andy	
2	Groce, Julie	
	(exas A & M University)	- Mayor
9	Hayes, Tom	Land Mills
	(Greater Edwards Aquifer Alliance)	
7	Neal, Jayne	-
	(City of San Antonio)	Oursear
8	Poole, Jackie	10.01
	(Texas Parks & Wildlife Department)	Make Forte

GENERAL SIGN-IN SHEET

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Notes from SEP-HCP BAT meeting on 8-25-10

Priorities: Acquisition, Management, Monitoring (in that order)

What are management priorities, focusing on desired outcomes, for GCW?

- Maintain or improve conservation value of the property for the species (e.g. productivity, habitat conditions)
- 2. Establish a baseline of habitat condition, species occupancy, and threats
- 3. Create, implement and periodically evaluate management plans specific to each property and adapt as necessary (based on item 2). We will provide an outline for what should be in the Mgmt. Plan.
- 4. Preserve sovereignty. Insure that all land management tools are available for use on each property (for example managers need to be able to do a burn, shoot pigs, and not be required to spray for mosquitos, trap coyotes, etc.). Create list of all generally accepted tools.
- 5. Strive for GCW habitat "where warblers are likely to occur" as described by Campbell (et seq.). Note that there may be some refinements of Campbell definitions for this region.

What are monitoring priorities, focusing on desired outcomes, for GCW?

- Monitor each property once a year for compliance-related issues (e.g. dumping, clearcutting)
- 2. Monitor the habitat (at some intermediate interval):
 - a. Habitat loss within the plan area
 - b. Oak wilt, cowbirds, and other invasive species
 - c. Hardwood recruitment
 - d. Herbivory threats
 - e. Forest structure (e.g. canopy closure, mid and upper canopy)
 - f. Climate change
 - g. Encroachment
 - h. Overall vegetation
- 3. Monitor target species to the maximum extent practicable (at some lower frequency) (e.g. occupancy, productivity/nest monitoring, territory mapping, depredation)
- 4. Create an annual report with results of monitoring. This report should inform management, and is part of the annual report that goes to USFWS. This info is centralized.

What are management priorities, focusing on desired outcomes, for BCV?

- Maintain or improve conservation value of the property for the species (e.g. productivity, habitat conditions)
- 2. Establish a baseline of habitat condition, species occupancy, and threats
- 3. Create, implement and periodically evaluate management plans specific to each property and adapt as necessary (based on item 2). We will provide an outline for what should be in the Mgmt. Plan.
- 4. Preserve sovereignty. Insure that all land management tools are available for use on each property (for example managers need to be able to do a burn, shoot pigs, trap cowbirds and not be required to spray for mosquitos, trap coyotes, etc.). Create list of all generally accepted tools.
- 5. Strive for BCV habitat as described by Campbell (et seq.). Note that there may be some refinements of Campbell definitions for this region.

^{***}Note that not all of these items are required, but this is preferred

What are monitoring priorities, focusing on desired outcomes, for BCV?

- Monitor each property once a year for compliance-related issues (e.g. dumping, clearcutting)
- 2. Monitor the habitat (at some intermediate interval but note that BCV habitat monitoring frequency is more critical than GCW due to rapid changes):
 - a. Habitat loss/change within the plan area
 - b. Vegetation structure (e.g. percentage broadleaf etc. as in Campbell)
 - c. Cowbirds, pigs and fire ants and other predators (particularly if related to human-induced changes)
 - d. Herbivory threats (e.g. grazing management, white-tailed deer)
 - e. invasive plant species
 - f. Climate change
 - g. Encroachment
- 3. Monitor target species to the maximum extent practicable (at some lower frequency) (e.g. occupancy, productivity/nest monitoring, territory mapping, depredation)
- 4. Create an annual report with results of monitoring. This report should inform management, and is part of the annual report that goes to USFWS. This info is centralized.
- ***Note that not all of these items are required, but this is preferred

What are management priorities, focusing on desired outcomes, for karst invertebrates?

- 1. Maintain or improve conservation value of the property for the species (e.g. habitat conditions)
- 2. Establish a baseline of habitat condition, species occupancy, and threats
- 3. Create, implement and periodically evaluate management plans specific to each property and adapt as necessary (based on item 2). We will provide an outline for what should be in the management plan.
- 4. Preserve sovereignty. Insure that all land management tools are available for use on each property (for example managers need to be able to limit access to a cave, do a burn, control fire ants, shoot pigs, and should not be required to spray for mosquitoes, trap coyotes, etc.). Create list of all generally accepted tools. Note that sovereignty includes subsurface (re: tunneling operations).
- 5. Determine and protect surface and subsurface drainage (including outreach and education).
- 6. Strive for karst invertebrate habitat "12 goals" as described by USFWS (2008) plus preventing unnecessary human visitation.

What are monitoring priorities, focusing on desired outcomes, for karst invertebrates?

- Monitor each property once a year for compliance-related issues (e.g. dumping, clearcutting)
- 2. Monitor the habitat (12 items plus visitation):
 - a. See 12-item list on page B-1 of USFWS (2008)
 - b. Visitation
 - c. Habitat aspects of spring populations
 - d. WNS
- 3. Monitor target species to the maximum extent practicable (at some lower frequency) (e.g. occupancy, point counts, timed-area searches)

4.	Create an annual report with results of monitoring.	Τŀ	his report should inform n	nanagement,
	and is part of the annual report that goes to USFW	/S.	This info is centralized.	

Our 5 to 10 year reviews for all species will include the following:

1. an evaluation of BMPs for efficacy and deleterious effect.

^{***}Note that not all of these items are required, but this is preferred