Greater Edwards Aquifer Alliance

Member Organizations

Alamo Group of the Sierra Club
Aquifer Guardians in Urban Areas
Austin Regional Sierra Club
Bexar Audubon Society
Boerne Together
Cibolo Nature Center
Citizens Allied for Smart Expansion
Environmental Stewardship Committees of the Episcopal Church of Reconciliation & Episcopal Diocese of West Texas
Environment Texas
First Universalist Unitarian Church of San Antonio
Friends of Canyon Lake
Fuerza Unida
Government Canyon Natural History Association
Hays Community Action Network
Helotes Heritage Association
Helotes Nature Center
Hill Country Planning Association
Guardians of Lick Creek
Kendall County Well Owners Association
Kinney County Ground Zero
Medina County Environmental Action Association
Northwest Interstate Coalition of Neighborhoods
OST 100
Preserve Castroville
Preserve Lake Dunlop Association
Preserve Our Water-Blanco County
San Antonio Conservation Society
San Geronimo Valley Alliance
San Marcos Greenbelt Alliance
San Marcos River Foundation
Santuario Sisterfarm
Save Barton Creek Association
Save Our Springs Alliance
Scenic Loop/Boerne Stage Alliance
Securing a Future Environment
Sisters of the Divine Providence
Smart Growth San Antonio
SEED Coalition
Texas Water Alliance
West Texas Springs Alliance
Wildlife Rescue & Rehabilitation
Wimberley Valley Watershed Association

September 2, 2010

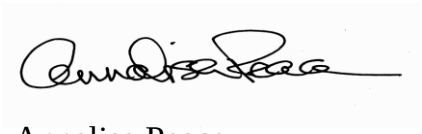
Comal County Engineer's Office
attn: Tom Hornseth, P.E.
195 David Jonas Drive
New Braunfels, Texas 78132

Dear Mr. Hornseth,

Please accept these comments regarding the Comal County HCP and EIS Final Drafts, prepared by the Greater Edwards Aquifer Alliance's Science Director, Tom Hayes, Ph.D.

I apologize for the late submission.

Thank you,



Annalisa Peace
Executive Director

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Comments on the Comal County HCP and EIS Final Drafts

Tom Hayes, Ph.D., Science Director, 512.477.2320, tom@aquiferalliance.org

I. Golden-cheeked Warbler Habitat Extent Incorrectly Quantified

Though the HCP (p. 2-10) notes that Diamond (2007, Model C) identified 50,620 ha of Golden-cheeked Warbler (GCWA) habitat in Comal County, the HCP fails to reveal that this figure includes 32,702 ha of rank-4 habitat. As described in Diamond (2007), rank-4 habitat is prime GCWA breeding habitat with 80-100 percent canopy cover, does not include edge habitat, and has an approximately 50 per cent probability of occupancy. GEAA has updated Model C for Comal County using high-resolution NHAP aerial photography (2008), and found that approximately 1,653 ha of rank-4 habitat were lost during 2001-08. This rate of habitat loss left 31,049 ha of prime (rank-4) GCWA breeding habitat remaining in Comal County in 2008.

The above quantification of high-quality GCWA habitat in Comal County are much higher than the estimate of 26,540 ha used by SWCA in the HCP, especially when one considers that the SWCA estimate includes lower quality habitat with as little as 50 percent canopy cover. Based on 2004 imagery, SWCA found only 5,501 ha (13,594 ac) of prime GCWA habitat (80-100 % canopy) in Comal County, while GEAA, using Model C (Diamond, 2007; as updated for loss 2001-08) found 31,049 ha (76,722 ac) of prime GCWA habitat (80-100 % canopy)in the county, or 564.4 % more than reported by SWCA in the HCP.

As evidenced in Diamond (2007), the model upon which GEAA based its analysis is well documented and heavily peer- and agency-reviewed. GEAA's estimates of GCWA habitat in Comal County are based on the peer-reviewed Model C (Diamond, 2007), the widely accepted habitat model, which is the only one contracted by TPWD and funded by USFWS (Section 6). Proprietary GCWA models by private consultants are typically much more conservative in terms of overall habitat and particularly prime habitat extent, relative to this agency-sponsored modeling effort. A possible explanation for this discrepancy is that some consultant models, such as that created by SWCA, are based on a neighborhood averaging function. For example, the 400-m radius "neighborhood" used by SWCA produces averaged values for habitat quality, which may decrease reported quality rankings for higher-quality habitat patches within the neighborhood.

Though technical information describing methods is insufficiently detailed in the HCP, the use of infrared photography by SWCA may also be problematic, in that this imagery may not be adequate for rigorous automated classification by image-

analysis software. Landsat thematic-mapper data is typically the data of choice for image classification, due to the increased robustness gained from its multispectral range, etc. In comparison, much of the SWCA analysis may be subjective and relatively low-tech, especially during their initial screening of woodland density, Ashe juniper and deciduous tree density, tree size, habitat patch size, and land use at local and landscape scale. The actual methods of these and other aspects of the SWCA analysis, however, are not presented in either the draft HCP or EIS documents.

Another apparent flaw in the SWCA analysis of GCWA habitat may be the area-specific application of only one habitat-delineation methodology (Magness et al. 2006), when there are many other peer-reviewed methods that are widely utilized. Agencies typically prefer area-specific estimates by more than one method of habitat delineation, in order to increase accuracy and for comparative purposes. SWCA's narrative discussion also displays a similarly selective use of the literature.

The lack of adequate field surveys during preparation of the HCP further compounds the problem of inaccurately assessing both habitat extent and GCWA occupancy in the Comal County HCP and EIS drafts. For instance, during impact assessments TPWD management guidelines recommend (TPWD, 1995; Campbell, 2003) that GCWA field surveys should be required for woodlands with as little as 35 percent canopy cover.

The lack of accurate baseline measures of habitat for the focal species, and the resultant inability to reasonably estimate impacts (take) and mitigation, fatally flaw the HCP and EIS process.

II. Listed Karst Invertebrates of Likely Occurrence in Comal County Not Analyzed

The failure to at least assess additional species for possible coverage is another major flaw in the HCP and EIS. For example, a detailed analysis of the possible inclusion of listed karst invertebrates is well warranted, but not included. This oversight is problematic, given the documented occurrence of nine federally endangered species of karst invertebrates in Bexar County immediately south of Comal County, including localities in Camp Bullis on the Bexar-Comal county line. Three of these species are of relatively wide distribution in Bexar County (up to 50 caves): Madla Cave Meshweaver (*Cicurina madla*), a ground beetle (*Rhadine exilis*), and a ground beetle (*R. infernalis*).

We suggest that the exclusion of these species might be addressed by including Comal County in the HCP for listed Karst Invertebrates that will be submitted for the Southern Edwards Plateau region.

III. Additional Rare Species of Likely Occurrence in Comal County Not Assessed

The failure to consider additional rare species indicates inadequate peer review by qualified outside scientists. For comparison, the HCP assessments for Comal and Bexar counties considered 30 and 140 species, respectively. Examples of rare species not assessed in Comal County include several *Eurycea* species such as *Eurycea pterophila* and numerous endemic aquatic invertebrates.

We anticipate that several aquatic invertebrates of Comal County will be covered in an HCP to be submitted by the Edwards Aquifer Recovery Implementation Program (EARIP). Several aquatic species found in Comal County, however, may not be addressed as species of concern in the EARIP HCP.

The Comal County HCP/EIS documents' failure to consider all listed (karst inverts) and other rare species potentially existing within Comal County is of great concern in regard to the adequacy of the analysis of potential impacts underlying the proposed issuance of an incidental take permit to Comal County for implementation of the HCP.

IV. Legal Requirements Not Met

The HCP and EIS final drafts fail to adhere to regulatory requirements. A pervasive flaw is the above use of poorly documented and likely erroneous baseline information for the habitat of the focal species (GCWA). Without accurate baseline information, the HCP legal requirement simply cannot be met for *ensuring the survival of and contributing to the recovery of covered species.*

The final drafts of the Comal County HCP and EIS do not meet the following basic legal requirements, as contained in the federal regulations and the HCP Handbook:

1. *Most importantly, the HCP and EIS do not provide adequate documentation to assure that the taking of covered species will be minimized and mitigated to the maximum extent practicable.*

   Section 10 of the ESA specifies the requirements for the issuance of incidental take permits to non-Federal entities. The impacts of such take must be shown to be minimized and mitigated to the maximum extent practicable.

2. *How the HCP will ensure survival of and contribute to recovery of covered species is not sufficiently specified, including trend analyses and statistically vigorous extrapolations.*

   Any proposed take cannot appreciably reduce the likelihood of the survival and recovery of the species in the wild.

3. *The HCP implementation funding is neither specified nor guaranteed, as required.*

   Various funding scenarios are described, though no commitment is offered to any of the proposed components. Furthermore, no upfront funding source to initiate preserve acquisition is identified.

4. *The EIS does not sufficiently assess all significant environmental effects.*

   Unlike the impact analysis in the Incidental Take Permit or the related HCP, the HCP Handbook emphasizes that the impact analysis in an EIS must evaluate *all* significant effects on the environment, such as air quality, water quality, cultural resources, and land use patterns, in addition to impacts to species.

The general lack of specificity and commitment in the final drafts does not sufficiently document that taking *will be minimized and mitigated to the maximum extent practicable.* This is the highest legal standard for HCPs, which is not demonstrated by the final drafts of the Comal County HCP and EIS, due to the use of an inaccurate baseline. This standard is otherwise essentially ignored.

References:

Campbell, L. 2003. Endangered and Threatened Animals of Texas: Their Life History and Management. Texas Parks and Wildlife Department, Austin.

Diamond, D.D. 2007. Project Final Report: Range-wide modeling of golden-cheeked warbler habitat. 12/15/07 report to TPWD, unpublished document.

TPWD. 1995. Management guidelines for the golden-cheeked warbler in rural landscapes. Special TPWD leaflet funded by USFWS.