



Member Organizations

Alamo Group of the Sierra Club
Aquifer Guardians in Urban Areas
Austin Regional Sierra Club
Bexar Audubon Society
Bexar Green Party
Cibolo Nature Center
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
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
Preserve Our Water-Blanco County
San Antonio Conservation Society
San Geronimo Valley Alliance
San Geronimo Watershed Alliance
San Marcos Greenbelt Alliance
San Marcos River Foundation
Santuario Sisterfarm
Save Barton Creek Association
Save Our Springs Alliance
Scenic Loop/Boerne Stage Alliance
Sisters of the Divine Providence
Smart Growth San Antonio
SEED Coalition
Texas Water Alliance
Travis County Green Party
West Texas Springs Alliance
Wildlife Rescue
Wimberley Valley Watershed
Association

April 16, 2007

Robert T. Pine, Supervisor
U.S. Fish and Wildlife Service
10711 Burnet Road, Suite 200
Austin, Texas 78758

Dear Mr. Pine,

We are grateful for the opportunity to submit these comments on the proposed rule to designate critical habitat for the three listed species and the draft economic analysis on behalf of the member organizations of the Greater Edwards Aquifer Alliance.

We strongly support the designation of critical habitat for the Peck's Cave Amphipod, Comal Springs Dryopid Beetle, and the Comal Springs Riffle Beetle (henceforth referred to as the Springs Invertebrates) for a number of reasons.

- 1) The primary cause of species endangerment in North America is habitat destruction through irreparable damage or complete loss. Therefore, protecting habitat is an essential conservation measure for many species.
- 2) Federally listed species that have designated critical habitat are more likely to sustain and increase their numbers than those species listed without critical habitat (Hagen and Hodges 2006).
- 3) The Endangered Species Act does not protect unoccupied habitat that may be essential to the species' survival and recovery, whereas critical habitat designation does permit this additional safeguard. Protecting unoccupied habitat is potentially very important, especially in the case of the Springs Invertebrates, where little is known about their life histories. Additional research might indicate that areas hitherto viewed as unoccupied serve as essential resources for the Springs Invertebrates.
- 4) The Edwards aquifer ecosystem is a hot spot of biodiversity that is home to over 60 endemic species (Greater Edwards Aquifer Alliance). The designation and future monitoring of this critical habitat will not only benefit the target species, it will likely contribute to the survival and recovery of additional federally listed species.

While we strongly support this designation of critical habitat, we have some additional recommendations that we urge the Fish and Wildlife Services (FWS) to adopt in its Final Rule.

- 1) The designation of critical habitat is an important first step for the survival of the Springs Invertebrates; however, further research is necessary to determine whether the allotted critical habitat will allow for the *recovery* of these species. Indeed, the intention of the Endangered

Species Act is to promote recovery of endangered or threatened species, not just survival.

2) Spring flow rate should be included in the final rule as its own Primary Constituent Element (PCE). Regarding the PCEs (p. 40593) the Proposed Rule states: "The purpose of this proposed designation is the conservation of Primary Constituent Elements necessary to support the life history functions of these three species." The Springs Invertebrates are dependent on the springs for survival; therefore, the spring itself, and not just the surrounding land, is a critical habitat.

The accompanying Economic Analysis adequately addresses the impacts of managing groundwater pumping; however, groundwater pumping is one of several variables affecting spring flow rates. Annual rainfall or local impervious cover amounts could also impact spring flow rates in addition to pumping. Since adequate spring flows are necessary for the survival of the Springs Invertebrates, it is not enough to just manage pumping rates.

The Edwards Aquifer Authority lists critical spring flow rates for the survival of the Springs Invertebrates in their 2005 Draft Habitat Conservation Plan. The Final Rule should not only include these *minimal* spring flow rates necessary for the survival of the Spring invertebrates, but it should also include *adequate* spring flow rates that allow for the species' recovery.

3) Primary Constituent Element 5 concludes that a gravel substrate is necessary for the Comal Springs Riffle Beetle because specimens were not found in Spring Run 4 (of 4) where the substrate was primarily sand and not gravel. The FWS has drawn this conclusion from a preliminary correlation reported in a study done by Bowles et. al (2003); and therefore, a definitive conclusion may inaccurately represent the findings. A number of abiotic and biotic factors, including flow rates, competition, and life history traits may all have been contributing factors to the species' absence in Spring Run 4. It is dangerous to designate PCEs based solely on correlations because it may result in the exemption of certain critical habitat that additional research would determine to be essential to the species.

4) The Economic Analysis should include the benefits to designating critical habitat for the Springs Invertebrates. Without estimating the benefits to designation, the costs seem unreasonably high, and therefore paint the conservation effort in a negative light. A full benefits analysis should include direct, in-direct, and non-use benefits. An example of an in-direct benefit to protecting the Springs Invertebrates is their role as an indicator of Edwards Aquifer water quality and quantity. Non-use benefits represent the moral reasons, such as a sense of stewardship, why many citizens would approve of this protective measure. The FWS could conduct a Willingness To Pay (WTP) survey to help quantify the value citizens place on the species' preservation.

5) Section 1.34(c) of the Edwards Aquifer Authority Act notes that a "holder of a permit for irrigation use may not lease more than 50 percent of the irrigation rights initially permitted. The user's remaining irrigation water rights must be used in accordance with the original permit and must pass with transfer of the irrigated land."

Reading paragraph #83 of the economic analysis makes it unclear whether this restriction on irrigation transfers was considered in the analysis.

Thank you for considering our recommendations.

Sincerely,

Annalisa Peace
Executive Director

Elyzabeth Earnley
Technical Research

AJ Davitt
Technical Research

Sources:

Bowles, D.E., C.B. Barr, and R. Stanford. 2003. Habitat and phenology of the endangered riffle beetle *Heterelmis comalensis* and a coexisting species, *Microcyloepus pusillus*, (Coleoptera: Elmidae) at Comal Springs, Texas, USA. *Arch. Hydrobiol.* 156(3):361-383.

Hagen, Amy and Hodges, Karen. 2006. Resolving Critical Habitat Designation Failures: Reconciling Law, Policy, and Biology. *Conservation Biology* 20(2): 399-407.

Greater Edwards Aquifer Alliance – Edwards Aquifer Protection Plan
http://www.aquiferalliance.org/p_Protection_Plan.cfm