

## REQUEST FOR PROPOSAL

The Edwards Aquifer Recovery Implementation Program (“EARIP”) is a collaborative, consensus-based stakeholder process tasked with the development of a plan to protect the federally-listed species potentially affected by the management of the Edwards Aquifer and to contribute to these species’ recovery. The stakeholders in the process include State of Texas agencies, local water resource authorities, water purveyors, environmental groups, municipalities, public utilities, and other individuals and groups interested in the Aquifer and the species residing in the Edwards Aquifer or in the springs and river systems fed by the springs. See Attachment 1. The EARIP is seeking proposals for independent peer review of a study conducted by its Science Subcommittee.

### BACKGROUND

#### Edwards Aquifer System

The Edwards Aquifer is a unique groundwater resource, extending 180 miles from Brackettville in Kinney County to Kyle in Hays County. It is the primary source of drinking water for over 2 million people in south central Texas and serves domestic, agricultural, industrial, and recreational needs of the area. The Edwards Aquifer is the source of the only two major springs remaining in Texas - the San Marcos and Comal springs. These springs feed the San Marcos and Comal rivers, which are tributaries to the Guadalupe River.

Eight species that depend directly on water in, or discharged from, the Edwards Aquifer system are federally-listed as threatened or endangered. These species include: fountain darter (*Etheostoma fonticola*), San Marcos salamander (*Eurycea nana*), San Marcos gambusia (*Gambusia georgi*), Texas blind salamander (*Eurycea rathbuni*), Peck’s cave amphipod (*Stygobromus pecki*), Comal Springs dryopid beetle (*Stygoparnus comalensis*), Comal Springs riffle beetle (*Heterolemis comalensis*) and Texas wild rice (*Zizania texana*). The San Marcos gambusia has not been seen since 1983 and may be extinct.

The primary threat to the aquifer-dependent listed species is the intermittent loss of habitat from reduced springflows. Springflow loss is the combined result of naturally fluctuating rainfall patterns, regional intermittent pumping, and temporal drawdown of the aquifer. Other threats include invasive non-native species, recreational activities, predation, flood flows, and direct or indirect habitat destruction or modification by humans and other factors that decrease water quality (U.S. Fish and Wildlife Service 1996).

For more background information regarding the Edwards Aquifer see <http://www.edwardsaquifer.org/pages/eaact.htm>

#### The Edwards Aquifer Recovery Implementation Program

In 1991, the Sierra Club filed a lawsuit under the Federal Endangered Species Act that ultimately resulted in the creation of the Edwards Aquifer Authority (“EAA”). The Texas Legislature directed the EAA to regulate pumping from the aquifer, implement critical period management restrictions, and pursue measures to ensure minimum continuous springflows of the Comal and San Marcos springs are maintained to protect endangered and threatened species to the extent required by Federal law. Today, competing water needs within the region continue to influence

management of the resource, and a workable comprehensive plan for the long-term protection for the federally-listed species has yet to be adopted among the region's stakeholders.

As a result, in late 2006, the United States Fish and Wildlife Service ("FWS") brought together stakeholders from throughout the region to participate in a unique collaborative process to develop a plan to contribute to the recovery of federally-listed species dependent on the Edwards Aquifer. This process is referred to as the Edwards Aquifer Recovery Implementation Program.

In May 2007, the Texas Legislature directed the EAA and certain other State and municipal water agencies to participate in the EARIP and to prepare a FWS-approved plan by 2012 for protecting the Edwards Aquifer-dependent listed species at Comal and San Marcos springs. The Legislature directed that the plan must include recommendations regarding withdrawal adjustments during critical periods (*i.e.*, droughts) that ensure that federally-listed species associated with the Edwards Aquifer will be protected.

For more information regarding the EARIP see <http://irnr.tamu.edu/earip>

### **Science Subcommittee**

The Texas Legislature required the EARIP to establish a Science Subcommittee of individuals "with technical expertise regarding the Edwards Aquifer system, the threatened and endangered species that inhabit that system, springflows, or the development of withdrawal limitations." The Legislature required the Science Subcommittee to prepare "initial recommendations by December 31, 2008, regarding:

- The option of designating a separate San Marcos pool, of how such a designation would affect existing pools, and of the need for an additional well to measure the San Marcos pool if designated
- The necessity to maintain minimum springflows, including a specific review of the necessity to maintain a flow to protect federally threatened and endangered species; and
- Whether adjustments in the trigger levels for the San Marcos Springs flow for the San Antonio pool should be made.

The EARIP refers to these recommendations as the "k" charges. In making these recommendations, the Science Subcommittee is to "consider all reasonably available science" and "base its recommendations solely on the best science available." The Subcommittee is supposed to "operate on a consensus basis to the maximum extent possible."

The Steering Committee appointed 15 scientists to serve on the Science Subcommittee and one non-voting member. A list of the members and their affiliations is included in Attachment 2. Ms. Susan Aragon-Long from the United States Geological Survey chairs the Subcommittee.

More detailed information about the work of the Science Subcommittee on the "k" charges can be found at <http://earip.tamu.edu/SciComm.cfm>

### **REQUESTED PROPOSAL**

The EARIP is seeking a proposal for independent peer review of the Science Subcommittee recommendations regarding the “k” charges. The recommendations will be available on or before December 31, 2008. The recommendations will be in the form of a report that will be approximately 75 pages in length. The work of the Science Subcommittee was based largely on review of available literature, invited speakers, and discussions among the members. The work did not involve new field work or the development of new hydrologic or biological models.

Because of the limited scope of the Science Subcommittee’s work, the EARIP does not seek to use the peer review process to “redo” the work of the Subcommittee. The EARIP does expect that the reviewers will focus on the entirety of the referenced research and historic observations used to support the Subcommittee’s conclusions and recommendations and the extent to which the recommendations adequately address the Legislature’s “k” charges. However, you should feel free in your proposal to suggest a different scope of review.

Your proposal should be in the form of a brief scope of work and include:

- The number of reviewers proposed
- A description of how the reviewers will be selected
- A description of the deliverable including whether the individual reviewer’s comments will be included
- Whether the Science Subcommittee will be able to comment on a draft report and/or respond to any questions the reviewers may have
- The length of time required for the review assuming that the recommendations are provided to you on December 31, 2008.
- A description of your group’s experience in managing peer review processes

It is anticipated that the contract will be a time and actual expense contract with a not to exceed amount. Your proposal should provide the hourly rates of the personnel and a proposed cap for the contract. If the hourly rates of the reviewers are unknown at this time, an estimate of those rates should be provided.

The objective of the EARIP is to ensure an unbiased, independent review. Accordingly, the EARIP will not suggest or recommend reviewers. The EARIP, however, does believe that the reviewers should be from outside of the region and not have directly worked on projects involving the Edwards Aquifer previously but may have expertise in ecohydrology, endangered species, karst aquifer systems, and other appropriate disciplines.

Texas A&M University will serve as the contracting agent for the EARIP with respect to this project. The project will be managed by Robert L. Gulley, the Program Manager for the EARIP. All proposals and inquiries should be directed to:

Robert L. Gulley, Ph.D.  
Program Manager  
Edwards Aquifer Recovery Implementation Program  
Texas A&M University  
Institute of Renewable Natural Resources

3355 Cherry Ridge Dr., Suite 212  
San Antonio, Texas 78230  
210-467-6575, ext 232 (W)  
210-930-1753(F)  
[RLGulley@ag.tamu.edu](mailto:RLGulley@ag.tamu.edu)

Proposals should be received no later than October 10, 2008.

## ATTACHMENT 1

### **PARTICIPANTS IN THE EDWARDS AQUIFER RECOVERY IMPLEMENTATION PROGRAM**

The following thirty-eight Stakeholders have executed the 2007 Memorandum of Agreement with the United States Fish and Wildlife Service regarding participation in the Edwards Aquifer Recovery Implementation Program:

Aquifer Guardians in Urban Areas	John M. Donahue, Ph.D.
Alamo Cement Company	Larry Hoffman
Bexar County	Mary Q. Kelly
Bexar Metropolitan Water District	Nueces River Authority
Carol G. Patterson	New Braunfels Utilities
City of Garden Ridge	Regional Clean Air and Water Association
City of New Braunfels	San Antonio River Authority
City of San Marcos	San Antonio Water System
City of Victoria	San Marcos River Foundation
Comal County	South Central Texas Water Advisory Committee
CPS Energy	South Texas Farm and Ranch Club
East Medina Special Utility District	Texas Bass Federation
Edwards Aquifer Authority	Texas Commission on Environmental Quality
Gilleland Farms	Texas Department of Agriculture
Greater Edwards Aquifer Alliance	Texas Living Waters Project
Greater San Antonio Chamber of Commerce	Texas Parks and Wildlife Department
Guadalupe Basin Coalition	Texas Water Development Board
Guadalupe-Blanco River Authority	Texas Wildlife Association
Guadalupe County Farm Bureau	

Union Carbide Corporation

## ATTACHMENT 2

### **Edwards Aquifer Recovery Implementation Program Science Subcommittee Members**

#### Members with biological or ecological expertise

Norman Boyd (Texas Parks and Wildlife Department)

Doyle Mosier (Texas Parks and Wildlife Department)

Jackie Poole (Texas Parks and Wildlife Department)

Michael Gonzales (San Antonio River Authority)

Tom Brandt (U.S. Fish and Wildlife)

Ed Oborny (Bio-West)

Glenn Longley (Texas State University)

#### Members with geological or hydrological expertise

Mary Musick (TCEQ – retired)

Rene Barker (Texas State University)

Alan Dutton (University of Texas at San Antonio)

Ron Green (Southwest Research Institute)

Robert Mace (Texas Water Development Board)

Sam Vaughn (HDR Engineering Inc.)

John Waugh (San Antonio Water System)

Susan Aragon-Long (U.S. Geological Survey)

Charlie Kreidler (non-voting member LBG-Guyton)