RECOMMENDED INITIAL CHARGE OF THE STEERING COMMITTEE TO THE SCIENCE SUBCOMMITTEE February 8, 2008

The Steering Committee of the Edwards Aquifer Recovery Implementation Program ("EARIP") requests the expert science subcommittee ("Science Subcommittee"), through a collaborative process designed to achieve consensus, to, among other things, analyze species requirements in relation to spring discharge rates and aquifer levels, as a function of recharge and withdrawal levels. The Steering Committee further requests the expert science subcommittee to review existing legislative critical period management triggers and levels for their scientific merit and develop recommendations for withdrawal reduction levels and stages for critical period management including, if appropriate, establishing separate and possibly different withdrawal reduction levels and stages for critical period management for different pools of the aquifer needed to maintain target spring discharge and aquifer levels. Work on these recommendations should begin following receipt of the specific decision evaluation framework regarding endangered species needs from the U.S. Fish and Wildlife Service and the development of specific charges by the EARIP.

To begin fulfilling the request described above, the initial task of the EARIP Science Subcommittee will be to complete an evaluation of the following three items:

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

In conducting this evaluation, the EARIP expects the Science Subcommittee members to evaluate all reasonably available science and make its recommendations based solely on the best science available as determined by the expert science committee. Because many of the members of the subcommittee have a history of involvement in the study and analysis of aquifer issues, we expect and require that they evaluate the reasonably available science with an unbiased perspective and considering the full range of options and issues.

With respect to the three items listed above, we specifically ask the Science Subcommittee to provide answers to the following specific questions to assist the EARIP in evaluating their recommendations.

Item 1: 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(s) to measure the San Marcos pool (if designated).

- 1.1 Identify the data and modeling that exist regarding whether a separate San Marcos pool should be designated? Are the data sufficient to support the designation of a separate San Marcos pool?
- 1.2 Provide your evaluation of the hydrogeological evidence and identify the data gaps.
 - 1.2.1. We request in your evaluation of this issue that you specifically evaluate the scientific findings and conclusions in a report titled "Evaluation of Augmentation Methodologies In Support of In-Situ Refugia at Comal and San Marcos Springs, Texas."
- 1.3 If there are data to support the designation of such a pool, what should be the extent and boundaries of such pool?
- 1.4 To what extent is this pool hydrologically independent?
- 1.5 Is there a need for an additional well or additional wells to measure the San Marcos pool, if one were designated. If so, what is the most effective location for such well(s)?

Item 2: The necessity to maintain minimum springflows, including a specific review of the necessity to maintain a flow to protect the federally threatened and endangered species

- 2.1. Is a minimum continuous springflow required for the survival and recovery of each species listed under the Endangered Species Act identified in Section 3.2 of the EA RIP Memorandum of Agreement?
- 2.2. If alternatives exist to continuous minimum flows that may not reduce appreciably the likelihood of the survival and recovery in the wild by reducing the reproduction, numbers, or distribution of each species listed under the Endangered Species Act identified in Section 3.2 of the EA RIP Memorandum of Agreement, identify and provide a preliminary evaluation of those alternatives to protect those federally-listed species.
 - 2.2.1 Your consideration of alternatives, should include an evaluation of information provided by RIP members on this issue.
- 2.3. Identify existing studies regarding the ability of each alternative other than maintaining minimum springflows to protect federally threatened or endangered species. Identify additional studies or data needed to fully evaluate each of these alternatives, including an estimate of the time and cost to conduct such studies, and any different alternatives that might be explored in the future.
- 2.4. Investigate springflow volume measurement methodologies and evaluate their accuracy. If any are deemed to be inadequate, suggest alternative measuring methods.

Item 3: Whether adjustments in the trigger levels for the San Marcos Springs flow for the San Antonio pool should be made

- 3.1. Should the trigger levels for the San Antonio pool based on San Marcos springflow be adjusted? Identify the existing data available to develop recommendations regarding such adjustments and what additional information will be necessary to make such recommendations.
- 3.2. Investigate springflow volume measurement methodologies and evaluate their accuracy. If any are deemed to be inadequate, suggest alternative measuring methods.
- S.B. 3 requires the Science Subcommittee to employ "a collaborative process designed to achieve consensus" and to "operate on a consensus basis to the maximum extent possible." Further, the meetings of the Science Subcommittee must be open to the public.

The Science Subcommittee shall submit in the form of a written final report its answers to these questions and a discussion of the basis for its answers to the steering committee and all other stakeholders involved in the EARIP no later than December 31, 2008. The Science Subcommittee shall present a brief report of its progress and its plans for future activities at each joint RIP and Steering Committee monthly meeting.

These charges may be modified by the steering committee during the course of the Science Subcommittee's discussions.