



Edwards Aquifer Habitat Conservation Plan
Applied Research Work Group

Report of the 2015 Applied Research Work Group [Draft]

Introduction

The Edwards Aquifer Habitat Conservation Plan (EAHCP) calls for the Applied Research Program to build knowledge about the Covered Species, and to facilitate the collection of data for the Ecological Model. This effort provides the EAHCP with a more accurate understanding of the ecological dynamics of the Comal and San Marcos spring systems, particularly under low-flow conditions. The Applied Research Program is an important component of the EAHCP as it helps to ensure the program meets its Biological Objectives and Goals.

In early 2015, the EAHCP received the first report of the National Academy of Sciences (NAS), where it provided recommendations towards all EAHCP programs, including the Applied Research Program. From these recommendations, a robust list of possible projects was compiled and presented to the NAS Recommendation Review Work Group (RRWG).

For the recommendations pertaining to the EAHCP Applied Research Program, the RRWG recognized that the EAHCP program had completed many of the recommendations or was currently in the process of incorporating them. The RRWG recommended the creation of an Applied Research Work Group to establish a research project schedule for the remainder of Phase I of the EAHCP. As identified in Chapter 7 of the EAHCP, funding for the Applied Research Program is limited to Phase 1 (2013 through 2019) only. The NAS RRWG stated that the Applied Research Work Group should start work as soon as possible to allow for potential inclusion of 2016 research projects in the prioritization process.

Specifically, the NAS RRWG recommended the following issues be addressed by the Applied Research Work Group: (1) Determining if additional applied research studies are needed; and (2) Developing a research plan that prioritizes the numerous studies recommended by NAS, the Science Committee, the Implementing Committee, and independent subject matter experts.

Based on the recommendation of the RRWG, the EAHCP Implementing Committee created the Applied Research Work Group (ARWG) at its August 20, 2015 meeting, appointing the following members to the ARWG and approving its charge: Tom Arsuffi (Texas Tech University), Janis Bush (University of Texas at San Antonio), Bob Hall (Edwards Aquifer Authority), Chad Norris (Texas Parks & Wildlife Department), and Kenneth Ostrand (United States Fish & Wildlife Service).

The purpose of the ARWG is to recommend a holistic Applied Research Project Schedule that takes into account all possible research necessary to better understand EAHCP's Covered Species in order to achieve the EAHCP's Biological Goals and Objectives. This schedule will be used to develop the Work Plans for the Applied Research Program in 2016 through 2019.

The Work Group held four meetings during September and October 2015. Dr. Tom Arsuffi was elected as the Work Group Chair. The agendas and minutes from each meeting are included here in Appendix II.

Categories of Applied Research

In its first meeting, the Applied Research Work Group (ARWG) identified five categories Applied Research on which to focus. These five categories, along with a short description, are listed below:

1. Conservation measures

Assessing the effectiveness of EAHCP Conservation Measures in achieving Biological Objectives & Goals.

2. Quantitative sampling methods

Ensuring sampling methods are reliable, valid measures for Covered Species; ensuring they permit evaluation of trends over time; and that they are consistent with Biological Objectives & Goals.

3. Habitat quality

Evaluating whether habitat is of sufficient quality for Covered Species consistent with Biological Objectives & Goals.

4. System memory/Disturbance ecology

Measuring the effects of disturbance (e.g., drought, scouring floods, etc.) on the system, and the resilience of the system in rebounding post-disturbance as it relates to Biological Objectives & Goals.

5. Data

Data management considerations relevant to existing and future data to be collected, as well as applications for analysis of existing data relevant to Biological Objectives & Goals.

The following section of this report is a summary of the *2016-2019 Applied Project Research Schedule* as recommended by the ARWG. This summary provides background information detailing the ARWG recommended projects, ARWG prioritization of these projects, and other pertinent information related to the EAHCP Applied Research Program plan for the next four years.

2016

2017

2018

2019

At their final meeting on October 23, 2015, the ARWG unanimously approved both this report and the draft *2016-2019 Applied Research Project Schedule* (Appendix I). The ARWG recommends the *2016-2019 Applied Research Project Schedule* for approval and adoption by the Implementing Committee.

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