Springflow Habitat Protection Work Group Charge

Overview

The Edwards Aquifer Habitat Conservation Plan (EAHCP), through its committees, approved Nonroutine Adaptive Management for the Voluntary Irrigation Suspension Program (VISPO) in May 2019. The Adaptive Management Stakeholder Committee (Stakeholder Committee) recommended the Implementing Committee approve the Nonroutine Adaptive Management Proposal for VISPO, create a Work Group to address springflow-related issues raised in the discussion document circulated to the Stakeholder Committee members by Myron Hess on May 22 (for issues not related to federal exempt pumping), and that the Implementing Committee support the evaluation process and any recommended studies that come out of the Work Group. These directives are captured in the Stakeholder Report accompanying the Nonroutine Adaptive Management proposal. Therefore, a Work Group is being formed to address springflow-related issues raised in the May 22 discussion document.

Background

The May 22, 2019 discussion document distributed by Myron Hess to the Stakeholder Committee provided a description of the overall EAHCP springflow objectives and discussion of flows in both the Comal and San Marcos springs. The discussion document concluded with the following recommendations as presented to the Implementing Committee January 30, 2020.

(1) The Implementing Committee should ensure a technical evaluation is undertaken of water quality impacts of predicted extended periods of flow below 80 cfs in both spring systems, either using the Hardy water quality model but calibrated and validated using data from recent low-flow periods or using an alternate approach;

(2) The Implementing Committee should ensure a technical evaluation is undertaken of potential impacts of predicted extended periods of flow below 80 cfs on Comal Springs riffle beetle populations;

(3) The Implementing Committee should ensure that a technical evaluation is undertaken of potential impacts of predicted extended periods of flow below 80 cfs on San Marcos salamander populations, particularly for populations in the area below Spring Lake dam, and on Texas wild-rice and other vegetation serving as habitat for fountain darters downstream of Spring Lake dam, including consideration of impacts from recreation;

(4) The Implementing Committee should ensure that a rigorous review process, involving input from qualified experts in addition to the Science Committee, is undertaken, as soon as reasonably possible, to inform study design for each of the above-listed technical evaluations and to assess the extent to which adaptive management study commitments included in the EAHCP that are related to flow impacts have been met, will be met, or should be adjusted;

(5) The Implementing Committee should ensure, to the maximum extent possible, that the above-listed technical evaluations are completed by December 31, 2022; and

(6) The Implementing Committee should commit to undertaking an evaluation, to be completed by no later than December 31, 2023 if possible, of whether adaptive management action is needed to address adverse impacts predicted by one or more of the above-listed technical evaluations and commit to provide reasonable opportunity for Science Committee and Stakeholder Committee input into the decision process.

Previous Decisions

On May 23, 2019 the EAHCP Implementing Committee approved the recommendations of the Stakeholder Committee, including the creation of a Work Group to address springflow-related issues raised in the discussion document circulated to the Stakeholder Committee members by Myron Hess on May 22. The Springflow Habitat Protection Work Group will be comprised of Stakeholder Committee members representing permittees, industrial and agricultural users, and environmental organizations.

Charge

The Work Group's charge will be developed through a two-part process. Part 1, defined here, asks the Work Group to clarify and refine the broad questions highlighted in the May 22 discussion document to focus the inquiry and help identify the technical expertise and analysis needed to inform the deliberations of the Work Group during Part 2 of the charge, regarding recommended studies and evaluations. That refinement of the questions is intended to be captured in Part 2 of the charge. Building on the additional information developed pursuant to Part 1, the Work Group's implementation of Part 2 of the charge should result in recommendations to the Implementing Committee outlining specific technical studies or evaluations to address points (1), (2), and (3), and, if additional, relevant shortcomings of adaptive management study commitments are identified, point (4) of the May 22 discussion document. The Implementing Committee understands the over-arching intent of the discussion document and of the Work Group process is to ensure progress continues in understanding the effects of extended periods of low flow on Covered Species

and in identifying realistic approaches to address any significant adverse effects identified. Computer modeling and species-specific research conducted pursuant to the EAHCP have been working to address aspects of these questions. It is understood that the approaches developed through this Work Group may lead to adaptive management under the current federally issued Incidental Take Permit (TE-63663A-1) or may be addressed as part of the application process for rollover to a future permit.

Administration

The Work Group will meet on an as-needed basis. The Work Group will bring Part 1 recommendations to the Implementing Committee directed at defining Part 2 of the charge for approval before beginning implementation of Part 2 of the charge. The Implementing Committee will guide the implementation of specific studies or evaluations identified pursuant to Part 2 of the charge, with the Work Group considering those results in recommending potential management responses.

Members

The Work Group will consist of the following members:

- Myron Hess—Chair (Texas Living Waters Project)
- Patrick Shriver (San Antonio Water System)
- Adam Yablonski (Agriculture Permit Holder)
- Doris Cooksey (City Public Service [CPS])
- Cindy Loeffler (Texas Parks and Wildlife)
- Ryan Kelso (New Braunfels Utility)
- Melani Howard (City of San Marcos)
- Kimberly Meitzen (Texas State University)
- Charles Ahrens (Edwards Aquifer Authority)
- Jacquelyn Duke (Science Committee representative)
- Charles Kreitler (Science Committee representative)
- Tom Arsuffi (Science Committee representative)

Part 1 Process

During Part 1, the Work Group will work to clarify and refine the broad issues identified in the May 22, 2019 discussion document regarding the potential adverse impacts of extended periods of low flow as currently predicted with a recurrence of historical hydrology and possible responses. Part 1 is expected to result in a series of more-specific questions, as well scientific inquiries to identify knowledge gaps and recommended tools for filling those gaps, to be considered during Part 2, under the following general topics: (1) water quality impacts in both springs, (2) impacts on the Comal Springs riffle beetle

populations, (3) impacts on San Marcos salamander populations, (4) impacts on Texas wild-rice and other vegetation serving as habitat for fountain darters, and (5) any relevant, specific adaptive management study commitments identified as meriting adjustment or further attention.

During Part 1, scientists and others who played a key role in development of the flow-regime recommendations incorporated into the EAHCP will be requested to provide input, either through in-person or remote presentations, all of which will be recorded. These presentations are anticipated to cover subjects such as the development of springflow objectives, the models used to develop the EAHCP (i.e. the Hardy model, habitat suitability modeling, and STELLA), species-specific research completed and on-going as part of the EAHCP, EAHCP EcoModeling, and the results of the National Academy of Sciences (NAS) review. In addition to adding EAHCP Adaptive Management Science Committee members to the Work Group as indicated above, Science Committee members will be invited to be present for the presentations.

Following the presentations, the Work Group will have an open discussion to inform the process of refining the set of questions and issues to be pursued, subject to approval by the Implementing Committee, as Part 2 of this charge.

Proposed Part 2 Process[1]

The Part 2 process is intended to result in two discrete sets of scopes of work (SOW), with set (a) designed to identify data gaps and evaluate/review available tools and set (b) designed to guide studies and analyses to address data gaps, including by developing and/or employing tools identified pursuant to set (a). Both sets are intended to provide information to address the refined questions and issues identified in Part 1. The anticipated steps for both parts of the process are set out in **Table 1**.

[1] This proposed process was developed from comments at the January 30, 2020 Implementing Committee meeting. The Part 2 process may change depending on the outcome of the Part 1 process.

Table 1. Springflow Habitat Protection Work Group Tasks and Products

Part	Task	Product	Timeframe
Part 1	Presentations by key scientists and participants (EAHCP staff will handle logistics.)	Identification of issues that were anticipated to be addressed regarding extended periods of low flow	March 20 – June 30
	Work Group (WG) refines questions and issues to be addressed in Part 2	Proposed Part 2 of the Charge elaborating on species questions and issues to be addressed	Ongoing through Aug. 19; presented to IC on Aug. 20.
Part 2	Develop SOW(s) for technical experts to identify data gaps and evaluate/review available tools (based on WG input, EAHCP staff will develop draft SOW(s) for review by WG*)	SOW(s) to be presented to the IC for approval	August 21 – Oct 7 IC = Oct 8
	RFP(s) and contracting (undertaken by EAHCP staff)	Award contracts to identify data gaps and evaluate/review available tools	Oct. 9 – Jan. 15, 2021
	Contractors present interim results	Presentations to Work Group members	As needed
	Contractors present recommendations to Work Group and Science Committee	Work Group defines/prioritizes next steps*	Late 2021
	Develop SOW(s) for studies and/or tool development (based on WG input, EAHCP staff will develop draft SOW(s) for review by WG*)	SOW(s) to be presented to IC for approval	Early 2022
	RFP(s) and contracting (undertaken by EAHCP staff)	Award contracts for studies and/or tool development	Mid-year 2022
	Contractors present to Work Group and Science Comm. Results shared with Stakeholders and IC	TBD	TBD

* Opportunity provided for input from EAHCP Adaptive Management Science Committee members.

The technical experts who are contracted for the Set (a) SOW(s) will be asked to present to Work Group members periodically, as appropriate, during their evaluation of data gaps and available tools. The Work Group members, with EAHCP staff, will use the results of the contracted work to finalize, with input from Science Committee members, recommendations for the Set (b) SOW(s) for studies to fill data gaps, which may include development and deployment of tools identified pursuant to the Set (a) SOW(s).

The Work Group will seek input from Science Committee members on the various SOW(s). Summaries of input received will accompany the SOW(s) presented to the Implementing Committee for approval. The Implementing Committee will then guide the implementation of specific studies or evaluations developed pursuant to Part 2 of this charge.