
Springflow Habitat Protection Work Group

Meeting 8 Minutes

August 21, 2020

9:00-11:00am

1. **Confirm attendance**
All Work Group members were present except Ryan Kelso.
 2. **Meeting logistics**
Jamie Childers provided an overview of virtual meeting logistics, meeting points of contact, and Work Group logistics.
 3. **Public comment**
There were no public comments.
 4. **Approve meeting minutes:**
A motion was made by Cindy Loeffler, seconded by Tom Arsuffi to approve the meeting minutes from Meeting 6 (July 8, 2020). In the absence of objection, the minutes were approved by consensus.
 5. **Issue 1 final draft Motion**
Myron Hess presented the draft Issue 1 motion and described the process for developing the motion language. He indicated that at the end of the process a single product of all the motions would become the Part 2 charge.
 6. **Mentimeter Issue 2 prioritization poll results *presentation***
Jamie Childers presented the results of the Mentimeter prioritization poll.
 7. **Overarching Issue 2 *discussion* regarding prioritization**
Myron Hess opened the discussion of the prioritization of topics. He agreed that, as Kimberly Meitzen suggested, it might be appropriate to combine “Study CSRB in the San Marcos” with “spring opening investigation of CSRB habitat” in the number one ranked topic. Myron noted his understanding that the primary issue for CSRB in San Marcos under that topic likely would be monitoring individual spring openings during low flow periods. Tom Arsuffi indicated that there is a need to understand what spring openings disappear at different flow rates under “Substrate, subsurface well, and spring opening investigation of CSRB habitat” but that several substrate studies have been done and additional substrate studies are not needed. Charlie Kreitler explained that he thinks technical studies are needed to better understand the hydrogeology at Comal
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Springs, including further analysis of existing studies and data. Specifically, need to evaluate the aquifer elevation of the springs that go dry, the formation with which they are associated, and which springs have the highest population of CSRBs that need to be protected. Cindy Loeffler agreed that Charlie's summary is what the Work Group should be trying to understand. In statements made later, Patrick Shriver and Tom expressed agreement with Charlie's summary and on the point of not focusing on the substrate issue. Tom suggested the Work Group move on to the second topic of: Low springflow and impacts on CSRB populations, survival, and life stage development.

Tom indicated that the second topic included very broad questions that he had ranked low because he could not figure out how to address effectively. Chad Norris indicated that he believed work discussed under the first topic looking at flow at individual spring openings would help address key issues under this topic. Chad Norris indicated that defining what springs are flowing through investigations of spring openings would benefit the species and that the questions from the second topic are difficult to address.

The discussion continued onto "Use results of genetic testing to inform study efforts." Myron noted his understanding that this topic focused mostly on using the results of ongoing work rather than proposing anything different be done. Tom Arsuffi and Cindy Loeffler agreed. Chad Norris, responding to a question from Charlie Kreitler, noted that there might be further understanding that could be gained from genetic work in addition to what has been done or is ongoing. Chad Furl indicated that the CSRB Work Group is not considering the issue of genetics—it is not within its charge. Chad Furl indicated that for the refugia work, the decision is to wait for Will Coleman to complete his work before initiating genetics work at the refugia.

He also indicated that genetics work has been done, in addition to the ongoing study by Will Coleman, and which he understands to indicate pervasive gene flow amongst CSRB populations (Lucas 2016). Chad Furl clarified that refugia work that will include consideration of genetics will be seeking to address different questions than this Work Group. With respect to the question of interaction with the CSRB Work Group, Myron indicated his understanding that the charge of the CSRB Work Group is to address a limited, and different, set of questions regarding CSRB than what the SHP Work Group is discussing. Chad Furl confirmed the specific topics covered by the CSRB Work Group. Chad Norris indicated the valuable contribution that genetics work can provide.

The discussion then led into a proposed motion by Myron Hess, which was seconded from Charlie Kreitler. After subsequent discussion, the initial motion was revised. The motion was later reduced to writing as follows.

Motion to Define Prioritization for Further Work Group Consideration Under Issue 2

Issue 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 (CSRB) populations.

Motion by Myron Hess, second by Charles Kreidler, and later amended upon the suggestion of Jacquelyn Duke and Tom Arsuffi (made orally during August 21, 2020 meeting and later formalized in writing for consideration for formal action):

Move that the Work Group carry forward the following topics under Issue 2 for consideration in Part 2 of the Work Group's charge related to impacts of extended periods of flow below 80 cfs on CSRB populations. Topics included under the topic area, or theme, of "substrate, subsurface well, and spring opening investigation of CSRB habitat" but with the removal of the topics specific to substrate investigation, with the addition of monitoring of spring openings in Spring Lake that are proximal to CSRB habitat to assess which openings continue to flow at different levels of low overall flow, and with the addition of the consideration of genetic studies and the results of those studies focused on understanding how low springflow may impact CSRB populations and, particularly, local adaptations exhibited by CSRB associated with different springflow areas.

- 8. Overarching Issue 3 *discussion* regarding potential areas of focus**
Myron Hess presented the statement of Issue 3. Attendees used Mentimeter to provide questions and comments for consideration in addressing the issue.
 - 9. Approach for categorizing AMP study topics under Issue 4**
Myron Hess described a possible approach to addressing Issue 4 by categorizing the adaptive management study commitments he identified from a review of the Edwards Aquifer Habitat Conservation Plan.
 - 10. Public comment**
There were no public comments.
 - 11. Future meetings**
The next meeting is scheduled Wednesday, September 9, 2-4pm.
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