Springflow Habitat Protection Work Group

Meeting 9 Minutes
September 9, 2020
2:00-4:00pm

1. **Confirm attendance**
   All Work Group members were present.

2. **Meeting logistics**
   Jamie Childers provided an overview of virtual meeting logistics, meeting points of contact, and Work Group logistics.

3. **Public comment**
   No public comments.

4. **Approve meeting minutes**
   An amendment was proposed to Meeting 7 minutes on page 2 in the second paragraph regarding Patrick Shriver's comments related to pollutant concentration during low flow conditions. A motion was made by Myron Hess, seconded by Ryan Kelso to approve the meeting minutes from Meeting 7, as amended (August 6, 2020). In the absence of objection, the minutes were approved by consensus.

5. **Issue 2 Motion discussion**
   Myron Hess opened the floor for comments regarding the Issue 2 final draft Motion from Meeting 7. There were no comments.

6. **Mentimeter Issue 3 prioritization poll results presentation**
   Jamie Childers presented Menti poll responses from the 9 participants on Issue 3 theme prioritization. In order of preference, the results were Recreation Impacts and Management with the highest ranking, followed by Habitat Management, Spring Discharge, Dam Impacts, Sedimentary Study, and then Genetics, in that order.

7. **Overarching Issue 3 discussion regarding prioritization**
   Genetics
   Charles Kreitler advocated for the removal of the Genetics theme due to a disconnect with the overall focus on low flow issues. Myron Hess also expressed uncertainty about how genetics information would inform flow issues.

   Sedimentation Study

Cindy Loeffler posed the question of sedimentation rates during low flow events in the absence of flushing from spring flows. Myron Hess noted potential impacts on the San Marcos Salamander, acknowledging the unaccounted-for sediment impacts below the dam and noted that a topic under the Spring Discharge theme does include consideration of sedimentation associated with low springflows and effects on San Marcos salamander, although not directly addressing areas below Spring Lake.

Dam Impacts

Charles Kreitler noted the east side of the dam is higher than the west side. He noted previous recommendations that the dam be configured to direct water to the east side towards endangered species' habitat and not over the west side during low flows. He suggested follow-up to assess if that change was made. Kimberly Meitzen raised a question about how recent repairs may have affected that aspect.

Chad Furl indicated that crest height did not change on the spillway's east or west side. He added that construction was on the lakeside and downstream side, not the crest, but did reduce leaks on the eastern side.

Tom Arsuffi raised a question about the effect of water depth in Spring Lake, in terms of pressure, on flow from the springheads.

Melani Howard brought up 90s study, by Kenneth Saunders and Kevin Mayes, that may have addressed spring head pressure. Cindy recommended the topic be included under springflow discharge relating to how the manipulation of boards in the dam may affect outflows.

Kimberly Meitzen voiced concern about temperatures-- if Spring Lake levels are lower, the side slough feeding eastern side of dam warms up and is warmer than the western side of the dam. She noted concern for suitable temperatures for San Marcos salamanders below the eastern spillway of the dam.

Charles Kreitler recalled a bit of history regarding a potential lawsuit over the dam board height arguing for lowering dam board heights with an aim of higher flow downstream for increased recreation. Previous studies concluded that lowered boards would impact hydrodynamics of the Edwards Aquifer via faster drainage.

Jamie Childers cited the Spring Lake Management Plan and management of lake discharge. She questioned how the surface water permit was acquired.

Dianne Wassenich explained that the water rights were issued before lake management issues were addressed and cited Andy Sansom as an expert on those rights. She recalled quibbles over adding board to the dam, during low springflow, for glass bottom boats and counter arguments from kayakers wanting more flow downstream. She recalls that a TPWD (Texas Parks and

Wildlife Department) study indicated changing of height was negligible to springflow. Dam board changing now requires public notice, all of this existing outside of HCP. Melani Howard pointed out that the Spring Lake management plan is referenced in HCP.

Jamie Childers noted diversions is a covered activity under incidental take permit for Texas State University and is dependent on USGS flow meter downstream. Melani Howard mentioned the list of agencies that must be notified of dam board changes.

Patrick Shiver asked for clarification, outside of levels of take, on the topic of the salamander location in relation to flow over dam. How are they doing and how have they done regarding surrounding changes as acknowledged in Meeting 2?

In response to an inquiry, Ed Oborny remarked that the salamanders below the eastern spillway are doing well given habitat changes. Their largest issue is increased sedimentation from changes to upstream vegetation. He reminded the group not to discount that salamanders also occur on the western side below the dam, where they are harder to sample. He also noted that the big impacts could come from recreational activity, habitat management particularly related to aquatic vegetation, and discharge. Have not seen big differences in temperature between east and west sides at flow levels experienced recently.

Spring Discharge
Charlie Kreitler noted springflow at San Marcos has always been reasonable. Monitoring of spring discharge from the bottom of the lake is a complex problem and would require higher spending for increased data which may not yield many insights. He also noted that Benjamin Schwartz may have done more work on springflow in Spring Lake.

Myron Hess mentioned changes in ratio of outputs at lower flows in the bottom of the lake from the northern end in comparison with the southern end as an issue of interest. Cindy Loeffler echoed the importance of monitoring Spring Lake spring characteristics during low flow conditions.

Patrick Shiver asked Charlie Kreitler about the relation of his comment on springflows to the procedures of measurement. Charlie referenced the potential for lower accuracy and difficulty in measuring flow at an individual orifice in the lake.

Habitat Management
Myron Hess polled the group regarding an understanding of covered issues under this broad topic.

Patrick Shriver brought up vegetation management and managing differing response and interaction with the environment as springflow changes.

Melani Howard indicated a desire for more information on specific aspects of management e.g. the question of the effect of managing vegetation below the spillway on salamander status.

Kimberly Meitzen suggested the issue might be bundled with the first issue of recreation management because habitat management is affected by recreation management. Charlie Kreitler seconded the importance of recreation management and the relationship to habitat management.

Finalizing three topic areas (or themes)
Myron asked the work group about focusing on recreation impacts and management, habitat management, and spring discharge as the themes under Issue 3. Melani Howard advocated for inclusion of Dam Impacts over Spring Discharge. In response to Melani's comment, Myron suggested including the three themes with the addition of studying how water flows over the dam between 80 and 45 cfs. There were multiple expressions of support.

Charles Kreitler stressed the importance of Recreation Impacts and Management of how a short period of low flow combined with a weekend of heavy recreation by students could undo years of effort and dollars.

Kimberly Meitzen agreed and noted people are entering the river through unofficial access points (the culvert under Sessom). People are setting up chairs and hanging out below eastern spillway even during the period of reduced recreation with minimal enforcement or signage. She noted protection signs face upstream, not informing those traveling upstream, which is happening more often. She noted river is above carrying capacity for recreation and also advocated for increased education and enforcement.

Melani Howard highlighted that Conservation Crew have been pulled off the river due to Covid-19 so behaviors going unchecked.

A motion was made by Myron Hess, seconded by Melani Howard, to approve the topic areas (themes) of Recreation Impacts and Management, Habitat Management, and Spring Discharge with the inclusion of consideration of distribution of flow over the dam during periods of 45-80 cfs. During discussion members did not indicate concerns or objection to the motion. The motion was later finalized in writing as follows.

Issue 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.

Motion by Myron Hess, second by Melani Howard with no further discussion (made orally during September 9, 2020 meeting and later formalized in writing for consideration for formal action):

Move that the Work Group carry forward the following topics under Issue 3 for consideration in Part 2 of the Work Group's charge related to 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:

Topics included under the topic area, or theme, of Recreation Impacts and Management, Habitat Management, and Spring Discharge and with the understanding that further consideration of the distribution of flow over the Spring Lake Dam between 80-45 cfs total flow also is included.

8. **Overarching Issue 4 discussion regarding categorizing and focusing study topics**

   Myron Hess described potential starting points for assessment of status of studies included in the document "Adaptive Management Studies Referenced in Chapter 4 and 6 of EAHCP": no obvious inconsistency with EAHCP study commitments (green highlights), permit extension issue (turquoise), and Work Group priority subset (red). Myron made clear that the entry in the work group recommendation column is a possible starting point and is in no way a final decision. The group discussed the statements pulled from the EAHCP summarizing study commitments and discussed a process for characterizing and carrying forward studies from this list. Patrick Shriver noted the importance of differentiating science from policy and not prejudging management decisions. Members agreed to spend time with the document before the next meeting and provide comments for discussion.

9. **Public Comment**
   There were no public comments.

10. **Future Meetings**
    The next Work Group meeting will be held on Wednesday, September 23 at 2:00-4:00pm.