



NOTICE OF OPEN MEETING

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August 7, 2017 Meeting Minutes

1. Call to order.

Vice Chair, Dr. Weckerly called the meeting to order at 9:05 a.m. Members present include Janis Bush, Jacquelyn Duke, Conrad Lamon, Glenn Longley, Robert Mace, Doyle Mosier, Chad Norris, Jackie Poole, and Floyd Weckerly. Tom Arsuffi and Charles Kreidler advised prior to the meeting that they were unable to attend.

Dr. Weckerly proposed an agenda sequence change to move item 7 to the last item, due to the fact that a few members had already attended the previous EcoModel meetings and agenda adaptive management items 8 and 9 require a quorum from the group.

2. Public comment.

No public Comment

3. Approval of May 10, 2017 Science Committee meeting minutes (Attachment 1).

Dr. Longley motioned to approve the minutes as written; Dr. Mosier seconded. No opposition.

4. Receive report from the Program Manager.

- **Spring systems hydrologic update**

Dr. Furl provided a presentation to the committee on recent hydrologic conditions at the spring systems related to daily, monthly, and annual trends. The Edwards Aquifer region has received below average rainfall this year and is currently in Stage 1 Drought Restrictions. However, substantial flooding on the morning of this meeting may change aquifer levels in the coming days.

- **Response to Science Committee member questions from last meeting**

No pending questions from the prior meeting.

- **Hydrologic model update**

Dr. Furl presented a brief overview of the Edwards Aquifer Authority's modeling efforts. Their final interim report should be submitted in Fall 2017.

- **Refugia operations update**

Dr. Furl presented a summary of Refugia collection efforts and facility construction efforts. The construction request for proposals are available on the FedConnect portal.

▪ **National Academy of Science Report 2 Implementation Plan**

Mr. Pence presented the status and process for developing an EAHCP Implementation Plan based on the National Academy of Science Report 2 suggestions. The NAS 2 Work Group will present their Implementation Plan report to the Implementing Committee for potential adoption on August 17, 2017.

▪ **Potential changes to Comal Springs riffle beetle bio-monitoring sampling**

Dr. Furl discussed the recent changes to the Comal Springs riffle beetle sampling procedures.

5. **Presentation of the 2016 Applied Research results: Evaluation of the trophic level status and functional feeding group categorization of larvae and adult Comal Springs riffle beetle (Attachment 2).**

Dr. Nowlin presented an overview of his 2016 applied research on the trophic level status and functional feeding groups of the Comal Springs riffle beetle (CSRB). Through complex isotope analyses, findings suggest that the CSRB prefer woody debris or coarse organic material and have similar food preferences between larvae and adults.

Dr. Weckerly noted that for complex invertebrates, they generally have different feeding preferences at different life stages. Dr. Nowlin replied that it depends on the species and habitat conditions. CSRB larvae may eat similar materials to that consumed by adults, but there are slight differences in that the larvae prefer finer gravel while the adults are found in slightly larger gravel.

Dr. Weckerly inquired about people finding CSRB in wells, whereas, we generally find them at the springs. Dr. Nowlin replied that although they are an aquifer-dependent species, they still have eyes and respond to light which infers that they are not entirely a subterranean species; it depends on where you are within the aquifer. The complexity of the Comal Springs food webs play an important role in the distribution of the CSRB.

6. **Presentation on 2018 Applied Research projects Scopes of Work (SOW) (Attachment 3).**

Dr. Furl presented a list and proposed scopes of work for the applied research program. The evaluation of SAV treatment has been removed from the list due to project design and lack of ability to isolate and control the variables within the river.

Mr. Pence discussed the ecosystem services of the EAHCP analysis and the consensus from regional entities on the utility and need for one, however, the research project lacks the funding

necessary to conduct the research. The EAHCP supports research efforts if another entity finds the means to pay for the research.

Dr. Furl presented an overview of the new Sessom Creek scope of work. A new flow meter and radar station will be set-up on the creek to monitor and capture loading characteristics. Dr. Lamon noted the bias associated with load duration curves derived from short-term monitoring and suggested that the station be a more long-term installation to better assess general trends.

7. Presentation, discussion, and possible recommendation of the Nonroutine Adaptive Management proposal related to the City of San Marcos (COSM) and Texas State University's Sediment Removal Measures (§§5.3.6 and 5.4.4) and the Impervious Cover/Water Quality Protection Measure (§5.7.6).

Mr. Pence discussed the structure, status, and strategy for implementing a nonroutine adaptive management proposal for sediment loading mitigation. In San Marcos, sediment deposition can not only smother and displace, but also kill vulnerable stands of Texas Wild-rice. In Comal, the private landowner incentive program has had minimal interest. Through the nonroutine adaptive management process, funding will be reassigned and applied to more proactive measures instead of reactive.

Dr. Mace promoted the proactive approach and approved of AMP still allowing for hydrosuction if needed.

Dr. Lamon stated that it's a good approach to address the sedimentation issue closer to the source.

Dr. Duke noted that this measure is an excellent example of what the EAHCP is about. She also inquired about conservation measures for future development. Mr. Pence emphasized that the COSM and CONB watershed managers are working closely with the planning departments and have standards in place. Mr. Enders, CONB watershed manager, replied that they have restrictions for impervious cover on areas that are greater than or equal to 30 percent impervious cover or if the impervious area is equal to or greater than 5,000 m².

Dr. Weckerly motioned to approve recommendation of the Nonroutine Adaptive Management proposal to the Stakeholder Committee; Glenn Longley seconded. No opposition.

8. Presentation and possible endorsement of an expedited process to prepare and to submit the Nonroutine Adaptive Management Scientific Evaluation Report, with Science Committee Chair and Vice-Chair approval, to the Stakeholder Committee.

Dr. Weckerly motioned to approve recommendation of the Nonroutine Adaptive Management proposal to the Stakeholder Committee; Dr. Mace seconded. No opposition.

9. Presentation of the Ecological Model (EcoModel) workshop and EAHCP Phase 2 considerations.

Dr. Furl presented an overview of the EcoModel structure and utility. Dr. Lamon expressed concern about the need for an uncertainty analysis to help quantify the accuracy of the model. Mr. Pence explained that the model has been calibrated and the contract has expired, however, that does not preclude potential future improvements to the model if deemed necessary.

10. Consider future meetings, dates, locations, and agendas.

- Science Committee Meeting, November 8th, 2017, San Marcos Activity Center (Multipurpose Room).

11. Questions and comments from the public.

No questions or comments from the public.

12. Adjourn: 1:40 p.m.