



EAHCP Science Committee

03/27/2019 Meeting Minutes

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Members of this committee include: Tom Arsuffi, Janis Bush, Jacquelyn Duke, Charles Kreitler, Conrad Lamon, Glenn Longley, Doyle Mosier, Chad Norris, Jackie Poole, Floyd Weckerly and Jack Sharp.

1. Call to order.

Janis Bush, Jackie Poole, and Glenn Longley were unable to attend.

2. Public comment.

Myron Hess, Chair of the EAHCP Stakeholder Committee, requested that language regarding Phase II be added to the title of the Scientific Evaluation Report (SER) for the VISPO nonroutine adaptive management proposal (AMP).

3. Approval of the minutes from the November 11th Science Committee meeting

Mr. Mosier motioned to approve the meeting minutes and Dr. Weckerly seconded; no opposition.

4. Receive report from the Program Manager.

- Hydrologic update
- June 27 meeting location update
The next meeting will be at the USFWS San Marcos Aquatic Resource Center
- Comal Springs Riffle Beetle Work Group update
- Phase II update
Scott Storment, EAHCP Program Manager, presented an overview of the Phase 2 Work Plan process. The Phase 2 Work Plan will be presented for approval at the Implementing Committee meeting on May 23rd.

5. Discussion and possible action to elect the nomination for the Science Committee Vice-Chair for 2019.

Dr. Kreitler motioned to approve Jacquelyn Duke as the Vice-Chair, Dr. Weckerly seconded; no opposition.

6. Presentation, discussion, and possible recommendation of the Nonroutine Adaptive Management proposal related to the VISPO Flow Protection Measure.

Minimum Flow Objectives

Dr. Furl presented an overview of the nonroutine adaptive management proposal (AMP) related to the VISPO Flow Protection Measure. The VISPO AMP seeks to increase the VISPO forbearance from 40,000 ac-ft yr-1 to 41,795 ac-ft yr-1 to the minimum flow objective of 30.0 cfs at Comal Springs during a repeat of the drought of record. Slide 23 of the VISPO AMP presentation summarizes the MODFLOW modeled outputs over time.

Based on the current enrollment amount of 40,921 ac-ft yr-1, this amendment would require enrollment and new leases for the difference of 874 ac-ft yr-1. Stakeholders inquired about the distribution and duration of the existing and the proposed AMP VISPO leases. EAA's VISPO and Modeling staff experts replied that most of the permits are in Uvalde and Medina counties and are on 5-year leases with the likelihood of renewal, new leases may be in Uvalde and Medina county.

Dr. Lamon, inquired about the status of the USGS sensitivity analysis. Dr Furl and Mr. Winterle replied that the results will be available later this year. However, the model's calibration and validation are reviewed and published and the National Academies of Sciences' Report 3 states that the MODFLOW model's Flow Protection package simulations were conservative and "effective" at achieving the minimum flow requirements for Comal and San Marcos spring complexes. Dr. Lamon suggested one cannot make an effective decision on forbearance without understanding model uncertainty.

EAHCP Program Manager, Scott Storment, also discussed how modifications to the VISPO Flow Protection Measure are a part of the Strategic Adaptive Management Process for Phase 2. The Funding and Management Agreement (FMA) lists deadlines for approving such changes for Phase 2, therefore, the VISPO AMP should proceed in order to meet the FMA requirements.

Long-term Flow Objectives

Next, the committee reviewed long-term average flow model simulations. Previous long-term springflow modeling suggests that average Comal discharge would be 196 cfs, a deficit of 29 cfs from the long-term average of 225 cfs. Dr. Furl offered that the goals could not be met with the pumping assumptions required regardless of what model is being used. He suggested that the empirical springflow record experienced over the last 4 decades indicate little chance of violating the 50 year average flow goals. Some expressed concern that future recharge rates may decrease with a warmer climate and pumping may increase with population growth. Mr. Winterle explained that the flow protection measures help regulate the amount of pumping and the recharge rates represent drought of record conditions.

80 cfs pulse requirements

Next, the committee discussed the 80 cfs pulse requirements that are related to the minimum flow requirements. The EAHCP states that, during drought of record conditions, the minimum flow cannot exceed six months of duration and would be followed by 80 cfs flows for 3 months. Dr. Furl commented that the current flow proposal would not trigger the 80 cfs requirement. Mr. Norris expressed that the logic behind the 80 cfs flow criteria was to ensure that the Comal Spring Runs would not be dry for more than 6 months.

Dr. Arsuffi motioned to approve the VISPO AMP and Dr. Sharp seconded the motion, Dr. Lamon and Mr. Mosier abstained; the motion passed.

7. Presentation and possible endorsement of an expedited process to prepare and allow Committee Chairs to submit the Nonroutine Adaptive Management Scientific Evaluation Report to the Stakeholder Committee.

Committee members approved the submission of the Scientific Evaluation Report (SER) through the Science Committee chairs to the Stakeholder Committee per the inclusion of the requested ASR Forbearance schedule assumptions used to generate the recent model results.

Dr. Weckerly motioned to approve the Chairs submission of the SER for the Stakeholder Committee and Dr. Sharp seconded the motion; the motion passed.

8. Presentation and discussion of components of the 2020 Edwards Aquifer Authority Work Plan.

Kristy Kollaus, EAHCP Environmental Scientist, presented an overview of water quality trends and characteristics measured by the EAA Real-Time water quality data. Ms. Kollaus explained that the Comal Landa Lake station would be relocated to the Upper Spring Run to account for inflows from Spring Run 4 and the Blieders Creek tributary. Mr. Norris proposed that the monitoring station would be better suited near Spring Island, instead of the Upper Spring Run. Dianne Wassenich of the San Marcos River Foundation requested the water quality data for the lowest San Marcos monitoring location, the TPWD Fish Hatchery.

9. Presentation and discussion of components of the 2020 City of New Braunfels Work Plan.

Mark Enders presented an overview of the proposed work listed in the 2020 City of New Braunfels Work Plan. The Committee discussed littoral vegetation removal efforts for the invasive, elephant ear and other plants; removal efforts can increase erosion if the areas are not replanted. Mr. Enders replied that they will work with the landowners to select replacement plants. Moving on to the invasive species removal, Dr. Arsuffi inquired if the removal efforts have been effective. Dr. Weckerly proposed documenting and evaluating the number of individuals caught per catch event as a good starting point.

10. Presentation and discussion of components of the 2020 City of San Marcos Work Plan.

Melani Howard presented an overview of the proposed work listed in the 2020 City of San Marcos Work Plan. Texas wild-rice (TWR) seed production will continue but will no longer be managed by USFWS staff at SMARC and will instead be overseen by Meadows Center staff that have prior experience propagating the TWR from seed. Mrs. Howard also presented an overview of the newly revised phasing of WQ/LID implementation in the Sessom Creek watershed as part of the Impervious Cover and Water Quality Protection Conservation Measure.

11. Presentation on the aquatic plant boom assessment in Spring Lake.

Ms. Kollaus, presented an overview of the proposed methodology for Spring Lake aquatic vegetation plant boom assessment. Overall, members agreed that such a catchment system is needed to prevent the spread and deposition of floating vegetation mats on vulnerable stands of TWR and native aquatic plants located downstream.

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

- Thursday, June 27, 2019 at 9:30 a.m. at the USFWS San Marcos Aquatic Resources Center (500 E McCarty Ln, San Marcos)