



NOTICE OF OPEN MEETING

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MINUTES

As requested by the EAHCP Implementing Committee, the **2016 EAHCP Biological Monitoring Program Work Group** (BioWG) and the **2016 EAHCP Expanded Water Quality Monitoring Program Work Group** (WQWG) have been formed to produce final reports for review by the Implementing Committee providing their assessment of recommendations made for each of the EAHCP Monitoring Programs. The Work Groups are comprised of representatives from throughout the Edwards Aquifer Region. An initial joint meeting of both Work Groups was held **Tuesday, March 16, 2016, at 11 at the San Marcos Activity Center (Room 1), 501 E. Hopkins, San Marcos, Texas 78666.**

Members of the BioWG include: Tyson Broad (Texas Tech University), Jacquelyn Duke (EAHCP Science Committee/Baylor University), Mark Enders (City of New Braunfels), Rick Illgner (Edwards Aquifer Authority), and Doyle Mosier (EAHCP Science Committee).

Members of the WQWG include: Ken Diehl (San Antonio Water System), Melani Howard (City of San Marcos/Texas State University), Charles Kreidler (EAHCP Science Committee), Steven Raabe (EAHCP Stakeholder Committee/San Antonio River Authority), Benjamin Schwartz (Texas State University), and Michael Urrutia (Guadalupe-Blanco River Authority).

All members were present. The following business was considered.

1. Call to Order.
11:06 a.m.
2. Public Comment.
Public attendees introduced themselves. Refer to sign-in sheets for attendees.
3. Introduction of WG members, EAHCP staff, and facilitators.
Nathan Pence, EAHCP Program Manager, introduced the WQWG and BioWG participants, EAA staff members, and Design Workshop (DW) meeting facilitators.
4. Nomination and election of the Work Groups Chair.
The Work Groups unanimously elected Steve Raabe as Work Group chair.
5. Presentation of schedule options and determination of a schedule for following Work Group meetings.
DW proposed a meeting strategy and dates of March 29, April 7, April 27, May 9, May 11 and May 20. All proposed dates were approved by the WG, with the exception that Steve Raabe cannot participate the morning of March 29, Ben Schwartz cannot attend April 7 and Jacquelyn Duke cannot attend April 27. The WQWG will meet in the morning. The BioWG will meet in the afternoon. EAA provided an overview of outreach efforts and requested recommendations for additional entities that the Work Group would like to involve. No additional comments.

6. Discussion of the Work Group Charges, general information about the Work Groups, and overview of the Monitoring Programs and their background (Attachments 1 & 2).
Nathan Pence presented the charges of each group. The charge is to carry out a holistic review, take into account the recommendations of the National Academy of Sciences, and produce a final report for review by the Implementing Committee.
7. Discussion of and possible endorsement of the basic operational guidelines and principles which will direct the Work Groups in carrying out their charges.
Tyson Broad stated that the group needs to define "holistic" and "species-driven". Charlie Kreitler stated that caffeine detections may affect the species. Ken Diehl inquired if there will be an effort to look at compatibility and long-term trends. Nathan Pence confirmed that fifteen years of data will be shared. There is not yet adequate trend data to determine the long-term effects of caffeine on the species. Doyle Mosier stated that enabling long-term monitoring is an important outcome. Some measures will fluctuate, and others will not. Melani Howard stated that the Work Group should consider ways to minimize duplicative efforts. Nathan Pence states that this means focusing on meeting the goals and objectives of HCP. Ken Diehl states that turbidity, sedimentation and construction impacts on waterways should be considered. Melani Howard states that it would be beneficial for the Work Groups to be aware of watershed protection efforts. Ken Diehl recommends that the Work Group consider MS4 permits. It would be advantageous to eliminate duplicative sampling in certain areas. The Work Groups agree to add "integrate data collection" as an operational guideline. The Work Groups agree to add "support biological goals and objectives of the HCP". Steve Raabe, the Work Group chair, requests that DW simplifies the guidelines. He also requests that they are categorized into "guidelines" versus "strategies". Ken Diehl asks if the Work Group has alternates. Nathan Pence confirms that the Implementing Committee did not approve alternates, but they will note this for future work group efforts.
8. Presentation of current EAHCP Expanded Water Quality Monitoring Program (WQP) (SWCA, Phil Pearce)
Phil Pearce provides a summary of annual water quality sampling efforts (for surface water, stormwater, sediment, passive diffusion and groundwater sampling). Tyson Broad asks if groundwater samples are taken at the same locations. Phil Pearce states that samples require close proximity to the springs. If spring flow drops below 30 cfs, additional parameters apply. Ken Diehl asks whether an analysis of sheet flow from the golf course, and entrance into the tributary, maximizes the location of sampling value to constituents. EAA states that sampling locations above Hinman Island Drive are beyond the flow going into the channel. Sampling depths of 18 inches are not arbitrary and were approved by the Science Committee. Phil Pearce states that sampling occurs multiple times during each storm event and in real time. Ben Schwartz states that many samples for DEET organochloride have been gathered. Is that something that the PHB program is analyzing or do HCP samplings need to include? The Work Groups agree that this is a parking lot topic. EAA is to provide DEET sampling protocols and compare to EAA's. EAA is collecting for rivers, and SWCA is collecting for springs. Ben Schwartz asks if there are data points that minimize manmade impacts. EAA states that this human-related topic is the jurisdiction of TCEQ. This effort should focus on species-related data points. The HCP presents data at TCEQ meetings, but it is not formerly reported. Charlie Kreitler inquires if more sampling points are needed. Ed Oborny states that they have gathered 15 years of data.

9. Presentation of current EAHCP Biological Monitoring Program (BioMP) (BIO-WEST, Ed Oborny)
Ed Oborny provides an overview of fifteen years of biological monitoring data. In areas where storms and recreation did not disturb native vegetation, species growth occurred. Aquatic vegetation took a hit during the 2013-2014 droughts, followed by invasive plant growth. With Seasonal HCP restorations, reproduction of the Fountain Darter is occurring. Parking lot: EAA to provide comparisons for how these data points compare to other years. Ed Oborny states that measurements are taken twice a year. This year, due to storm events, Bio-West completed two additional trips in June and November. Bio-West monitors for changes in biological conditions. If there's not enough data or no changes ecologically, they are unable to draw correlations. For invertebrates, immediate changes correlate with spring flow. For vertebrates, changes correlate to vegetation and silt. The addition of real time monitoring stations that pick up turbidity and flows would be beneficial. Nathan Pence states that today EAA operates a total of six stations (three in both systems). EAA has learned from all monitoring consultants that stations produce the most useful data for both programs by far. Ed Oborny states that using the macroinvertebrate rapid bioassessment approach could save budget that could then be reallocated to riparian restoration efforts.
10. Presentation of Budget Info related to the WQP and BioMP.
Nathan Pence provided an overview of the EAHCP program historically budget. Prior to 2013, EAHCP staff performed all sampling and tasks. In 2014, EAHCP staff hired sampling teams, and the budget increase reflects this. Springs communities are currently formulating a 2017 annual work plan that will be implemented starting in January.
11. Next Steps – timeline and associated list of goals.
Future agenda items will include discussing draft modifications to the Scope of Work for the EAHCP Water Quality Monitoring and Biological Monitoring programs.
12. Consider future meetings, dates, locations, and agendas.
Upcoming Work Group meetings will be held on March 29. Location to be determined. DW is to provide each Work Group member with calendar reminders for upcoming meetings.
13. Questions and comments from the public.
None.
14. Adjourn.
3:25 p.m.