



May 20, 2016 MEETING MINUTES

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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.

A final joint meeting of both Work Groups was held on **Friday, May 20, 2016, at 9 a.m. at the San Marcos Activity Center (Multipurpose Room), 501 E. Hopkins, San Marcos, Texas 78666.**

At this meeting, the following business was considered and recommended for Work Group action:

1. Call to Order.

Steve Raabe called the meeting to order at 9:05

2. Public Comment.

No comments

3. Recap of Work Group Meetings #3 (Bio) and #4 (Water Quality).

Alicia Reinmund-Martinez stated that the focus of this meeting is the discussion of the Work Group reports and to reach consensus on the conclusions and in such review the conclusions. Melani Howard asked if the study reaches are also monitoring take, Alicia responded yes. Charles Kreitler asked what is meant by flow partitioning within the Landa Lake. Bob Hall responded that EAA has capability now to do flow partitioning in house, therefore this sampling activity was being transferred to EAA. Melani Howard stated that there is take occurring outside of the study reaches, and reaching the goals as well as planting and removing outside of the study reaches. She asked if the intensive study reaches are adequately picking up those changes as well, statistically. Daniel Large answered that the NAS didn't recommend to expand the study reaches, but if using the data to generalize then would need to randomize the sampling approach. Jacquelyn Duke asked if you are doing work outside of the intensive reaches are there follow up monitoring studies on those. Alicia responded that for the Biological Monitoring Program that they are only looking at the intensive study reaches. Melani Howard said that they are tracking outside of the intensive study, but that it doesn't go toward credit for the biological goals.

Water Quality Monitoring report. The WQWG recommendations were based on three alternatives that were presented. Consensus was reached at May 11th meeting for Alternative #3 as detailed in presentation. Surface water ambient flow conditions to remove that program because being done by Clean Rivers Program and water quality monitoring component of the Biological Monitoring Program.

Doyle Mosier requested that the rationale for changes be brought into the tables within the Conclusions section of the report. Daniel Large clarified that for the changes to the stormwater monitoring, that during a storm, a priority for sample collection should be given the tributaries.

For PDS Sampling, Melani Howard and Ben Schwartz recommend that “most downstream site” be included in the report on page 17. For monitoring golf course runoff, Ken Diehl stated it would be good to include atrazine, on the chemical list for both golf courses. Melani Howard said that the golf course in San Marcos is being repurposed and that sampling should be revisited when that happens. Daniel Large said that is included in the report with the mention of land use changes. Mark Enders said it might be subject to change and revise what we’re sampling for, and make it clear that it’s the most recent IPMPs reviewed on a yearly basis with enough lead time for the lab and bottle types, etc. Ken Diehl said algaecides and fungicides would be included.

Alicia Reinmund-Martinez said that for the purposes of PDS there will be a membrane at the most downstream site of the system. Groundwater monitoring will be removed because of the EAA current monitoring program.

Fish/clam tissue sampling will be added to the program in the odd years and that the type of species and type of analysis will be determined by various experts. Ken Diehl asked if full approval is needed from Fish and Wildlife and would that effect the analysis? Chad said there are permit restrictions, but doesn’t foresee a problem. Doyle Mosier said that they are taking very few samples. Bob Hall said, that since we will not be sampling for human consumption concerns, will not need a large sample-4 grams of fish (as an example). Alicia Reinmund-Martinez said they are providing their responses to the recommendations and NAS is aware that work groups are meeting and working on the reports.

Alicia Reinmund-Martinez summarized Table W8 Conclusions regarding fountain darter, drop net sampling to determine water quality conditions for invertebrate and salamander to determine long term historical average.

4. Discussion and possible recommendation of staff-proposed changes to the nutrient monitoring program for the EAHCP Expanded Water Quality Monitoring Program.

Chad Furl said that currently ammonia is measured by the CRP program in both systems using 100 micrograms per liter, or 0.1 milligram per liter detection limit. In the Comal system that’s being monitored every other month and the San Marcos system it is monitored quarterly.

Ken Diehl pointed out a typo that at the bottom paragraph it should read Effects Concentration (EC)20 in the bottom paragraph of the Ammonia data chart handout. Ken Diehl asked if it is known if the EC value based upon growth and reproduction? Chad Furl answered that it is both, and the sampling included at 100 organisms in each pool. Chad Furl said that the CRP limits of 100 micrograms per liter are protective of the system and are adequate. No need to do monitoring at lower the detection levels.

Ben Schwartz if it is known how many of those data points were non-detect? Since 1998, Chad Furl said between 50 – 70 percent of them were detected. Daniel Large said that 100 micrograms per liter is CRP’s universal possible limit, and that depending on what lab used some detections using lower detection levels than that, but that’s what they put in print, is 100 micrograms per liter. Chad Furl said it’s flow dependent, when water flowing nicely, there should be no detects. In drought years, there will more detects.

Charlie Kreidler said that he thought that ammonia was being discussed as a possible nutrient instead of toxicity - he did not think ammonia was an issue. Chad Furl answered that the systems are phosphorous limited and not really a nitrogen issue. We took the approach of looking at ammonia as plant growth issue, but as being protective of aquatic life. Daniel Large said that the systems are highly oxygenated and ammonia would dissipate.

Alicia Reinmund-Martinez summarized the following: the SRP detection limit of at least 5 micrograms per liter, ammonia detection limit should remain at 100 micrograms per liter and the nitrate detection limit remain at 50 micrograms per liter. Rebecca Leonard said that the Water Quality Work Group does need to make a formal recommendation on the nutrient sampling. Ben Schwartz made the motion to keep 100 micrograms per liter for ammonia. Charlie Kreidler

seconded. No opposition. Consensus.

5. Discussion and possible recommendation of synergies and integration between monitoring programs.

Melani Howard asked that when BioWest does bio-assessments to notify City of San Marcos, so that the City can pick up the riparian part of the RPA (rapid bio-assessment) at the same time. Mark Enders seconded this request.

Chad Furl asked if changing Water Quality locations to match BioMonitoring location would provide any value to either programs? Analyzed why the sampling is done in the determined location – there was original justification. The conclusion is that there is no good reason to change sites as it is unlikely to provide any additional information. Recommending not to change for San Marcos. Steve Bereyso suggested adding to the report that some sites were adjusted based on sampling team safety factors. Ken Diehl asked approximately where the Clean Rivers Programs are sampling. Chad Furl said at I-35, far downstream site.

Daniel Large said that PDS will continue at existing sites as well as downstream. Chad Furl said PDS is placed in springs every other month and stay there for a couple weeks. Jacquelyn Duke said that changing their locations wouldn't provide any better information than they already do. Ken Diehl asked if for PDS samplers would continue at existing sites, and then the furthest downstream site for PDS samplers, would have the pharmaceutical membrane too? Alicia said Yes.

Charlie Kreitler asked for more information about the physical hydrology for two spring locations. Is there an understanding for the watersheds and how it affects species trying to protect? Alicia said that is maybe a research study for outside of the work groups. Melani Howard said that flooding is natural and good, but the impacts from urbanization is combination to be looked at. Jacquelyn Duke motioned to approve synergies with the addition of use of data to inform management, and provided to springs communities. Doyle Mosier seconded. No opposition. Consensus.

6. Presentation, discussion, and possible approval of the draft *Report of the 2016 Expanded Water Quality Monitoring Program Work Group*.

Steve Raabe suggested bringing the body of the justifications into the table so that they're all there in the table. Ben Schwartz said this will help eliminate misinterpretation.

Steve Raabe proposed that HCP staff will evaluate comments and determine if there is a substantive change and make a list to go back to the work group to approve and comment on suggested changes. Alicia Reinmund-Martinez said changes, edits and comments will be compiled and sent to the work groups for May 27 report review.

Melanie Howard motioned to approve the Water Quality Report with the understanding that we will change incorrect information and incorporate certain style suggestions. Ben Schwartz seconded. No opposition. Consensus.

Charlie Kreitler asked when the reports will be implemented? Alicia said 2017.

Tyson Broad suggested including an attachment of the previous SOW to the reports as an appendix for both Work Groups. Alicia Reinmund-Martinez agreed.

Tyson Broad suggested including brief description of what RBAs are, what is the flow partitioning, as well as SRP and other terminology not defined in the report as well as more discussion points as presented in meeting minutes. Doyle Mosier motioned to accept the current report with Tyson Broad's discussed modifications. Steve Raabe seconded. No opposition. Consensus.

7. Presentation, discussion, and possible approval of the draft *Report of the 2016 Biological Monitoring Program Work Group*.
No questions. No comments.
8. Next steps for final review of the draft Reports of the Work Groups.
 - *May 27, 2016 - Revised final report incorporating discussion and recommendations from the May 20 meeting will be sent to Work Group members via e-mail.*
 - *June 8, 2016 - Deadline for final comments on revised final report (May 27 version) to be e-mailed by June 10, 2016 for incorporation into the final draft.*
 - *Absolute final report to be sent out the week of June 13, 2016.*
9. Questions and comments from the public.
None.
10. Adjourn.
RL adjourned at 11:00.