

**Nueces River and Corpus Christi and Baffin Bays
Basin and Bay Expert Science Team (BBEST)**

Friday, October 7, 2011 at 9:00 a.m.

Texas Parks & Wildlife Department, Airport Commerce Facility, Austin, Texas

MINUTES

Members Present: Sam Vaughn, Chair; Rocky Freund, Vice Chair; Tom Arsuffi, PhD; Dave Buzan; Ben Hodges, PhD; David Hoehinghaus, PhD (via teleconference); Ryan Smith; Lonnie Stewart; Greg Stunz, PhD; Jace Tunnell; Lance Williams, PhD (via teleconference)

Call to Order, Introductions, and Public Comment

Chairman Vaughn called the meeting to order. There were no public comments at this time.

Approval of 7/29/2011, 8/15/2011, and 9/23/2011 Meeting Minutes

Approval of meeting minutes will occur via e-mail.

Science Advisory Committee (SAC) Report (Montagna)

SAC liaison Dr. Paul Montagna noted that the SAC had not met since the last BBEST meeting. The next SAC meeting is scheduled for November 2, 2011 at TCEQ. The BBEST will present the final report at this meeting.

BBASC Report (Vaughn)

Chairman Vaughn stated that the next meeting of the Nueces BBASC will be held on October 19, 2011 in Uvalde. The subcommittee chairs will present the final BBEST recommendations at this time.

BBEST Budget Status (TWDB, Vaughn)

Chairman Vaughn reminded members to submit their invoices in a timely manner.

Recommendations Report & Schedule (Vaughn)

Members reviewed the timeline and status for each report section and discussed formatting and compilation of the final report. The final report is presently scheduled for submittal to the BBASC on October 24, 2011. Subcommittee leads will address last minute revisions. All new revisions will be distributed prior to October 19, 2011 so that members are aware of substantive changes. Members discussed potential need for follow up and analyses to support the BBASC in their review of the final report. There is \$22K available to the BBEST for support of the BBASC; however these dollars must be spent contractually through the TWDB.

Instream Work Elements and Issues (Buzan)

a) Water Quality Analyses (Vaughn)

Chairman Vaughn discussed the review of water quality impairments in those river segments where BBEST selected gages exist. He noted that water quality standards have not been established for Oso Creek and that no dissolved oxygen (DO) data was

available for San Miguel Creek. He reviewed both DO and temperature compared against USGS streamflows. He recommends to the group that the draft final subsistence flows are sufficient to support a sound ecological environment at each gage site. In evaluations of temperature and DO at subsistence flows, no significant relationship was found. However, members agreed to recommend that further exploration of water quality at low/subsistence flows should be evaluated as part of the work plan for adaptive management.

b) Flow-Habitat Relationships for Perennial Streams (Smith)

Member Ryan Smith outlined his continued review of the biological overlay/habitat modeling analyses. He noted that several members had met with SAC member Ed Oborny and other experts to discuss these analyses. He noted that the experts felt the analyses was appropriate, but recommended the group flesh out solid decision-making criteria. After discussion Mr. Smith stated that, as a result of continued review of baseflows and habitat curves, this review did not result in changes to recommendations made at the September meeting. His recommendations are as follows:

- Keep current hydrographic separation, HEFR parameterization (no “bright line”)
- Keep all species currently modeled
- Use Full Period of Record
- Use 0.5 quality threshold
 - But include comment on patterns in all 3 quality ranges
- Emphasize total cross-sections for decisions
 - Utilize subsets only where most appropriate
 - Include mesohabitat cross-section subset graphs, tables in Appendix
- Use 200% of highest base flow number as upper extent of maximum analyses
- Use 75% of max threshold to determine “enoughness” for Base flows
- Use 20% of max threshold to evaluate subsistence
- Emphasize riffle species in Base Low and pool species in Base High

c) Geomorphology Overlay

Mark Wentzel, TWDB, reviewed the draft geomorphology overlay and discussed the results of their analyses. The BBEST members provided comments and corrections. In summary, the geomorphology analyses concluded:

- Stream channel shape (geometry or bathymetry) is determined by the movement of bed material (sediment) by flow. Substantial, long-term, changes in flow will change stream channel shape and consequently change existing habitat conditions for aquatic life.
- The existing channels at the three study sites used in the geomorphic analysis appear to be stable.
- The proposed environmental flow regimes, in and of themselves (assuming infinite additional infrastructure), are sufficient to provide from 14 to 41 percent of the average annual sediment yield compared to the baseline conditions, depending on the site and flow regime.
- The environmental flow regimes as they could be implemented (in combination with senior water rights and infrastructure limitations) are sufficient to provide

from 53 to 95 percent of the average annual sediment yield compared to the baseline conditions, depending on the site and flow regime. Members agreed to include as part of the report a statement that recommends site specific studies are recommended when significant geomorphological changes will occur.

d) Riparian Vegetation Analyses (Buzan)

Member Dave Buzan briefly explained the riparian summary section of the recommendations report. He noted that the section offers a general description and not a quantitative analysis of the relationship between different levels of flow and riparian communities. He found no significant relationship that would inform the selection of flow regime components by the BBEST. This report section has been posted to the FTP site and members will provide comments.

e) Instream Flow Regime Recommendations (Buzan)

Mr. Buzan reviewed the draft instream flow regime recommendations presented at the September meeting. He summarized the analyses and recommendations for the Nueces River at Laguna site, and provided a review of similar concepts and approach as applied to the remaining sites. After discussion, members agreed by consensus that the most recent HEFR tables, as reviewed today, are acceptable. The original HEFR tables, unadjusted, will be included in the final report as an appendix. It was noted that no pulse flow recommendations will be made at the Leona Springs gage.

Estuary Work Elements and Issues (Stunz)

a) Sound Ecological Environment

Members agreed by consensus that current conditions in Nueces Bay do not constitute a sound ecological environment.

b) Estuary Inflow Recommendations

Member Dr. Greg Stunz reviewed the write-up of the estuary inflow recommendations which the members had approved at the September meeting. The members discussed minor corrections and clarifications to the recommendations. Dr. Stunz will correct the document to include stream flow and gage height that would allow overbanking flows and inundation of the Nueces delta. The updated estuary recommendations will be posted to the BBEST ftp website for comment by the members.

Integration of Instream Flow and Estuary Inflow Recommendations

Members discussed integration of the instream flow and estuary inflow recommendations. It was noted that the recommendations for both do not need to match up exactly as the TCEQ will consider both the instream AND the inflow recommendations. Members reviewed the recommended flows from the Nueces River at Mathis site to see how they might line up with the estuary inflow recommendations. They discussed the disconnect between the historical flows at the Nueces River at the Mathis gage from those at the Nueces River at Calallen gage, and agreed that neither the instream flow recommendations or the estuary inflow recommendations should be altered as a result of the other. Dave Buzan will provide language noting the group's considerations and their evaluation of this disconnect.

Completion of Recommendations Report & Presentation to Nueces BBASC

Group deadlines are as follows:

- October 14, 2011: report sections posted to the FTP site with notifications to members when they are posted.
- October 17, 2011: review comments from members due; resolution of review comments will be addressed by the subcommittee chairs.
- October 19, 2011: presentation of recommendations to the BBASC.

The members discussed future support of the BBASC by the BBEST members, considering that no compensation for the BBEST members is available (all available funds must be spent contractually). In general, members will make themselves available to support the BBASC as their resources allow.

Public Comment

There was no public comment at this time

Adjourn