

**Brazos River and Associated Bay and Estuary System Basin and
Bay Expert Science Team (BBEST) Meeting
Wednesday, November 30, 2011 at 10:00 am
HDR, Inc., Austin, Texas**

Minutes

[All BBEST members except Dan Gise were in attendance.]

1) Public Input

None.

2) Approval of Minutes

Two minor corrections were made to the draft October 26, 2011 meeting minutes. The minutes were approved with the corrections.

3) Budget

No budget updates were given.

4) Timeline and Report

Regarding the “Schedule of Deliverables” that had laid out the report completion timeline, Kirk Winemiller said that the deadline to get report sections in to TWRI would need to be adjusted back somewhat to accommodate ongoing work. Kirk proposed that BBEST members send their sections to him by January 5th and he will do the editing work before it’s all sent to TWRI. Members discussed the best way to implement this review process. They agreed that Kirk will do edits of sections as he gets them, then Kirk will send them back to the author for feedback before going to entire group. Kirk went over what he has received so far and where additional work needs to be done. He said that figures need to be legible and fit on one page. Tim Bonner recommended that appendices remain in electronic format. There was a question of whether the October 31st versions of the HEFR tables were final. The BBEST agreed that additional work needs to be done on the flow matrices and that would occur later in the meeting. David Dunn recommended that discharge values be included with any of the site photos in the report. Tiffany Morgan gave a brief overview of her adaptive management table and the associated research priorities.

5) Presentations to the BBASC

Tiffany rehashed the BBASC’s request for presentations from the BBEST at the upcoming BBASC meetings explaining their recommendations development process. BBEST members came up with six discussion categories at their October 26th meeting: 1) e-flow paradigm, 2) geographic scope, 3) hydrologic separation, 4) ecological considerations, 5) recommended matrices and implementation, and 6) testing/scenarios. Tiffany said that BBASC chairman Dale Spurgin requested that two topics be presented at the January 24th BBASC meeting in Waco. Tim proposed, and the group agreed, that he would cover the highpoints of the first four topics at the upcoming BBASC meeting.

6) Ecology Subcommittee Discussions

Tiffany discussed the research priorities topic previously under the “Timeline and Report” portion of the agenda.

7) Hydrology Committee Discussions

David Dunn said that the preliminary flow data necessary to run the sediment analysis has been delivered to TWDB. David reviewed the process to produce the data. Monthly flow output from the TCEQ WAM 8 (current conditions, 2009 version – most updated version not yet available) and Brazos G WAM (full authorization but with estimates of 2060 reservoir sedimentation and return flows) at the Brazos River at Seymour and Richmond gages were disaggregated to daily regulated flows based on the historic flow patterns from the two gages. Similarly disaggregated flows were derived from gage data associated with the three on-channel reservoir projects used in the analysis: Double Mountain Fork West (Aspermont), Millican-Panther Creek (Easterly), and Little River (Cameron). These daily flows were given to Dan Opdyke (TPWD) who, using the preliminary BBEST HEFR matrices, ran FRAT to ultimately determine the impact of the projects on monthly flows at each of the gages. It was recognized that if the HEFR matrices change based on discussions later in the meeting, the FRAT runs would need to be redone. Mark Wentzel (TWDB) told the group that he and Nolan Raphelt (TWDB) will be working on the sediment analysis next week and should have a memo done by December 9th. Members discussed the infinite infrastructure scenario (purple line) which was part of the sediment analysis for previous BBESTs. Tim stated that he wants to see the purple line for the Seymour and Richmond gages.

The BBEST next discussed any changes that should be made to the preliminary HEFR matrices. Tiffany recommended dropping any flow levels that aren't ecologically justified. Dan Opdyke went over the preliminary matrices that he created on October 31st. He reminded the group that the 1 per 5 year pulse flow level wasn't included in those matrices. He also pointed out that in some cases (e.g., DMFBR at Aspermont) there are large gaps between the high base and the lowest pulse tier flow magnitudes. Kirk said that smaller pulses are important and need to be included, and if any pulse tiers need to be dropped, it should be a higher level pulse. The BBEST evaluated the pulse flow tiers for each HEFR matrix (based on factors such as similarities in magnitudes between successive tiers and which levels may represent overbank conditions) and made the following decisions:

- a) BR @ Richmond: remove 4 per season and 1 per 5 year
- b) BR @ Hempstead: remove 4 per season and 1 per 5 year
- c) NR @ Easterly: remove 1 per 5 year
- d) BR @ Bryan: remove 1 per 5 year
- e) LiR @ Cameron: remove 1 per 5 year
- f) LiR @ Little River: remove 3 per season
- f) LaR @ Kempner: remove 4 per season
- g) LeR @ Gatesville: remove 1 per 5 year
- h) BR @ Waco: remove 3 per season and 1 per 5 year
- i) NBR @ Clifton: remove winter and summer 4 per season and spring 3 per season
- j) BR @ Glen Rose: remove 3 per season and 1 per 5 year

- k) BR @ Palo Pinto: remove 3 per season and 1 per 5 year
- l) BR @ South Bend: remove 1 per 5 year
- m) CFBR @ Fort Griffin: remove 3 per season and 1 per 5 year
- n) CFBR @ Nugent: remove 3 per season
- o) BR @ Seymour: remove winter 3 per season and 1 per 5 year
- p) SFBR @ Aspermont: remove winter 3 and 4 per season and 1 per 5 year
- q) DMFBR @ Aspermont: remove winter 3 per season
- r) BR @ Rosharon: remove 4 per season and 1 per 5 year
- s) SBR @ Boling: remove 1 per 5 year

Dan Opdyke led members in a discussion of whether to make any simplifications in the HEFR tables. Based on this discussion, the group made the following decisions:

1. Raw HEFR matrices would be included in the appendices.
2. Final HEFR matrices would show the central tendency on pulse volume and the upper volume on duration.
3. The 5% magnitude reduction from one day to next was added as a pulse termination rule.
4. Final matrices would not include historical frequency of exceedance.
5. Dan's algorithm would be used to round all flow magnitude values.
6. Near-equal flow values in a given flow tier would not be averaged.
7. Flow values less than 1 cfs would be rounded up to 1 cfs.

Dan said he would redo the HEFR tables accordingly and rerun FRAT based on the changes. Mark Wentzel said they could have the purple line analysis done by early next week.

8) Other Business

If needed, the group set up a conference call on December 16th at 9:00 am to discuss any necessary issues. David Dunn will send out the call-in information to the members. Also, a tentative meeting date of January 11th at 10:00 am at HDR in Austin was set. Tom Gooch will let the group know if it's needed as the date gets closer.

9) Public Input

None.