

**Guadalupe, San Antonio, Mission, and Aransas Rivers and
Mission, Copano, Aransas, and San Antonio Bays
Basin and Bay Expert Science Team (BBEST)
Tuesday, September 14, 2010 at 10:00 a.m.
Texas River Systems Institute, San Marcos, Texas**

MINUTES

Call to Order

Chairman Sam Vaughn called the meeting to order.

Public Comment

James Dodson noted there will be a meeting of the San Antonio Bay Partnership set for November 1st and 2nd, 2010. He also noted that the next BBASC meeting will be held on November 3, 3010 in Port O'Connor, TX.

Steve Raabe informed the group of a meeting regarding the Texas Instream Flow Program set for September 29, 2010 from 9:00am to 3:00 pm. The intent of the meeting is to lay out all of the data currently collected and that which will be collected, as well as looking at how to apply the data to the intensive study sites. Vice Chair Norman Johns noted that members need to know this information from the SB2/Instream Flow program and that there are important components of the SB2 program in the SB3/Environmental Flows process. While several members will be attending this meeting, all felt it would be good to have a briefing of this meeting at the October BBEST meeting.

Approval of Minutes from August 12, 2010

The minutes were approved by consensus.

Science Advisory Committee (SAC) Report (Ward)

SAC liaison George Ward noted that the SAC work plan guidance has now been completed and distributed. It can be found on the following website: http://www.tceq.state.tx.us/permitting/water_supply/water_rights/eflows/resources.html. The document outlines guidance for developing the workplan component as designed in SB3 and discusses the occurrence of data gaps, which is an area the BBEST will need to consider in their current tasks. He also noted that the SAC has been developing guidance as to how to translate flow standards into the water management process. The issue is that flow standard will address components of flow that require refined resolution in time, where in water planning the time scale is in monthly increments.

BBASC Report

Steve Raabe gave an update on the activities of the BBASC. He noted that the group was continuing to receive presentations on various areas of the basin. He noted that at the group's November meeting the BBASC members will begin digging into what they might want to consider beyond what the BBEST will be providing.

BBEST Budget Update (TWDB)

Carla Guthrie, TWDB, noted that the BBEST budget has been approved and that invoices are being processed. She noted that an additional \$25,000 would be allocated to the BBEST budget in order to fund the assistance of BBEST members to BBASC members after BBEST recommendations are submitted.

Subcommittee Reports (Brief w/ Identification of Key Work Elements & Issues)

Each subcommittee chair gave an update on the activities that have occurred since the last full BBEST meeting for consideration by the BBEST as a whole later on in the agenda. Norman Johns distributed a summary of BBEST meetings and their allotted time along with a listing of billable hours for each meeting. The summary did not include assigned tasks.

Discussion of Estuary Work Elements and Issues

Subcommittee chair Warren Pulich began this discussion with an update on the oyster pilot study, a successful development of a salinity-zone approach. He noted that the group has proposed further applications of the same salinity zonation approach, but applied to additional focal species (*rangia* clams, etc.) in different regions of San Antonio Bay and in the Mission-Aransas system. The intent of these projects is to relate salinity zones to freshwater inflows. He noted that salinity zones are highly influenced by antecedent flow periods and suggested that the estuary subcommittee would need to focus on this and identify what periods to consider. The group is currently looking at a three-tier regime that would provide salinity requirements for each focal species. TWDB staff will need to rerun TxBLEND with updated and extended inflow information. TPWD's Lynne Hamlin will again contour the resulting TxBLEND output. The subcommittee is also proposing to use or obtain help from a graduate student to work on GIS analyses of salinity zones.

Pulich then discussed the use of Blue Crab as a focal species noting the variability of blue crab abundance and how its distribution relates to salinity zones. Rather than do a simple salinity zone analysis, the group proposed to form a task force, consisting of TPWD and other biologists, to discuss whether there might be a better way to predict inflow needs in the bay(s) for Blue Crabs.

The proposal for Estuarine Subcommittee Work Assignments was approved by consensus with the caveat that additional work may be identified during the process. The following tentative schedule was also agreed upon: a) Final freshwater inflow hydrology to TWDB by 9/17/2010; b) Application of TxBLEND w/ calibration verification (1-2 weeks after "a"); c) Contouring TxBLEND results (less than 4 weeks after "b"); d) Preliminary results in November; and e) Results in December.

Discussion of Hydrology Work Elements and Issues

Dr. Dan Opdyke, with TPWD, discussed the preliminary results of the hydrology analyses for five pilot gage locations: the Guadalupe River at Spring Branch, the Guadalupe River at Victoria, the San Marcos River at Luling, the San Antonio River near Falls City, and the Mission River at Refugio. Dr. Opdyke and the BBEST members discussed the results of parameter adjustments for the MBFIT hydrographic separation method (as requested by the BBEST during its August meeting) at each of the five pilot gages considering associated HEFR matrices derived for early, late, and full periods of record. A multi-day moving average filter was suggested for refinement of hydrographic separation and HEFR matrices for the Victoria gage (Gonzales and Cuero gages also) to address effects of hydropower operations. The MBFIT parameter adjustment recommendation of the Hydrology Subcommittee (upper base flow threshold @ 75%ile, lower HFP threshold @ 25%ile, N variable upstream to downstream, with potential application of filter for Victoria, Cuero, & Gonzales) was approved by consensus.

After some discussion, the BBEST chose by consensus to derive the upper and lower threshold values referenced above using the early, “pre-development” period of record and then apply these threshold values for the early, late, and full periods of record thereby avoiding significant anthropogenic effects on threshold derivation. The members agreed by consensus to allow Dr. Opdyke to proceed with methods and refinements discussed by the members to complete development of HEFR matrices for all gage locations and specified periods of record.

Discussion of Instream Work Elements and Issues

Dr. Tim Bonner discussed the work to be performed by this subcommittee, proposing to work with technical support from TWDB and other agency staff for collection of cross section data at each site. This work was approved by the BBEST during the August meeting. Dr. Bonner and Dr. Thom Hardy will continue to identify additional tasks that would require additional funding and will bring a proposed budget to the October BBEST meeting.

Future Meetings

The next meeting will be held on October 14, 2010 in San Antonio, TX. The following meeting will be held on Thursday, November 18th, 2010, to be held in the coastal area.

Each of the BBEST subcommittees will continue to meet as needed.

Public Comment

John Botros, TPWD, questioned whether the BBEST would consider other components of developing an environmental flow regime including geomorphology, water quality,

riparian conditions, etc. Chairman Vaugh indicated that all of these considerations will be addressed by the BBEST in developing their recommendations.

Adjourn