

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

Friday, September 23, 2011 at 9:00 a.m.

HDR Engineering, Inc., 4401 West Gate Blvd., Suite 400, Austin, Texas

**MINUTES**

**Members Present:** Sam Vaughn, Chair; Rocky Freund, Vice Chair; Dave Buzan; Tom Arsuffi, PhD; Ryan Smith; Paul Montagna, PhD; Jace Tunnell; Ben Hodges, PhD; Ken Dunton, PhD; Greg Stunz, PhD; David Hoeinghaus, PhD (via teleconference); Lance Williams, PhD (via teleconference)

**Call to Order, Introductions, and Public Comment**

Chairman Vaughn called the meeting to order. There was no public comment at this time.

**Approval of July 29, 2011 and August 15, 2011 Meeting Minutes**

Approval of meeting minutes was postponed and will be considered at the October meeting.

**Science Advisory Committee (SAC) Report (Montagna)**

SAC liaison Dr. Paul Montagna provided an update of SAC activities. The SAC is currently reviewing work plans from the Trinity/San Jacinto and Sabine/Neches groups, and noted that an addendum to the SAC geomorphology guidance had been developed. SAC chairman Bob Huston presented an update of activities to the Environmental Flows Advisory Group (EFAG). The next SAC meeting is scheduled for November 2, 2011 to be held at the Texas Commission on Environmental Quality (TCEQ) where the BBEST will present their final recommendations report to the SAC. Dr. Montagna noted that the SAC should complete their review of the BBEST report by the December 14, 2011 SAC meeting.

**BBASC Report (Vaughn)**

Chairman Vaughn noted that the Nueces BBASC was set to meet on October 19, 2011 where they will receive the BBEST recommendations report. The subcommittee chairs will present the report to the BBASC and all BBEST members are welcome to attend, though funding for reimbursement might not be available.

**BBEST Budget Status (TWDB, Vaughn)**

Chairman Vaughn reminded the members to submit invoices for expenses in a timely manner, and noted that all expenses must be incurred by the end of the fiscal year, August 31, 2011. He noted that the Texas Water Development Board (TWDB) had provided \$22,000 to allow the BBEST to provide technical support to the BBASC in their deliberations.

**Recommendations Report & Schedule (Vaughn)**

The members discussed the status of various report sections, updating the schedule for completion. Primary authors will submit their portions of the report to the BBEST ftp

site, notifying the chairs when sections are complete. HDR will compile each section into the final document.

### **Hydrology Work Elements and Issues (Vaugh)**

Chairman Vaughn provided an update on the time series analyses completed since the last meeting. Different scenarios of potential flow regime recommendations were applied to two hypothetical large-scale water supply projects. The members reviewed the results of these simulations in order to evaluate resulting flows protected by those recommendations (as shown by the purple line).

The resulting flows from these analyses will be passed on to Dr. Nolan Raphelt, TWDB, who is performing sediment transport analyses to identify the volume of sediment that is transported and how it changes as a result in changes of the flow recommendation.

### **Instream Work Elements and Issues (Buzan/Smith)**

Member Ryan Smith reviewed his analysis of flow-habitat relationships for perennial streams, providing an overview of flow components and functions and discussing evaluation approaches identified in the SAC guidance on biological overlays. Members reviewed various plots showing how different quality of habitats change over a range of flows. Mr. Smith discussed his analysis for the chosen sites and presented his summary observations.

The members agreed by consensus to approve his initial recommendations. Final approval of this portion of the recommendations report will be addressed at the next meeting.

Member Dave Buzan presented an overview of the initial recommended instream environmental flow regimes. Members discussed and approved by consensus the initial instream flow recommendations pending the water quality evaluations to be presented at the next meeting.

Regarding pulse flows, members discussed using the central tendency value or the upper bound of the pulse flow volume. Members agreed by consensus to the proposal that 2/year and smaller pulses would be the upper bound on volume and to the central tendency value for 1/year and above.

Members will review the report section on sound ecological environment and provide comments.

Member Buzan is currently drafting the riparian portion of the report.

### **Estuary Work Elements and Issues (Stunz)**

BBEST member Dr. Greg Stunz presented his review of historical conditions of Nueces Bay and Delta that led to the group determination that the current conditions are not representative of a sound ecological environment. Members discussed the analysis of the estuary subcommittee and agreed by consensus that they system is not sound.

Dr. Stunz also presented his recommendations for freshwater inflows to the delta and bay. After discussion members agreed by consensus to approve the initial recommendations of the bay and estuary subcommittee.

### **Future Meetings**

The next meeting will be held on October 7, 2011.

### **Public Comment and Adjourn**