

Brazos River and Associated Bay and Estuary System Basin and Bay Stakeholder Committee (BBASC) Meeting

Tuesday, January 24, 2012 at 10:00 a.m.

Brazos River Authority Office

Waco, Texas

Minutes

Introductions

BBASC chair Dale Spurgin called the meeting to order, and members introduced themselves.

Public Comment

Dan Opdyke announced that he has recently left the Texas Parks and Wildlife Department and now works for the environmental consulting firm, Anchor QEA.

Approval of October 25, 2011 meeting minutes

The minutes of the October 25, 2011 meeting minutes were approved without changes.

Funding Subcommittee Update – Tom Michel

BBASC vice-chair Tom Michel distributed a memo summarizing recent activities of the funding subcommittee (memo posted to Brazos BBASC web page). He went over the memo with the group saying that the subcommittee has assessed the needs of the BBASC in coming up with a final environmental recommendations report and has recommendations on how to potentially address those needs. Three main areas of need were identified: technical assistance, meeting facilitation, and report writing. Tom said that previous BBASCs have approached these needs in a variety of ways ranging from handling everything themselves to contracting with outside entities to provide all of the services. Regarding technical assistance for things such as implementing flow regimes using the FRAT model, some assistance could come from the BBEST, but more realistically a technical consultant would be needed at an estimated cost of up to \$10,000. Facilitation services, which the subcommittee deemed the highest priority, would cost \$25,000-35,000. Tom mentioned that two facilitator groups have already approached him as being interested in providing their services. And if the BBASC were to contract out the report writing duties, that could cost somewhere between \$10,000 and \$20,000.

Overall, the subcommittee estimated that to address all three needs through the use of professional services, the costs would be in the neighborhood of \$50,000 to \$65,000. The subcommittee determined that the two main ways to potentially raise funds for these services are through grants and by BBASC members individually soliciting funds from their interest groups (i.e., “pass the hat”). Because of timing issues, grants were determined not to be a likely funding source. Therefore, with 25 BBASC members and a minimum need of \$50,000, a goal could be for each stakeholder to raise on average \$2,000. Tom mentioned that if less than \$50,000 is raised by the group, the money would be spent based on a prioritization of services, which the subcommittee determined to be facilitation first, then technical assistance, then report writing. Tom

also said that service providers could potentially offer more than one service (e.g., one facilitator said they could also assist with report writing).

Tom handed out for review a draft fundraising letter that the subcommittee composed for the full BBASC to potentially use as an aid in their efforts to raise money. BBASC chair Dale Spurgin encouraged members to look over the final reports of previous BBASCs to become more familiar with what the end product of the group's work might look like. Gregg Easley (TCEQ) will send links to these reports out to the entire BBASC. Dale asked if TCEQ could act as the fiscal agent to the BBASC. Gregg said that TCEQ would not be able to act as the agent. Cindy Loeffler (TPWD) recommended checking with the Texas Water Development Board (TWDB). Dale agreed to contact TWDB. Tom Conry advised that a report writing subcommittee be formed in the event that there are insufficient funds to hire a service, and the subcommittee needs to begin work on a report outline. Ed Lowe agreed that facilitation is top priority and stated that the facilitator should have BBASC experience and should be hired by the March meetings. Tom Michel replied that the two facilitators he is in contact with have previous BBASC experience.

BBASC members discussed the draft fundraising letter. It was agreed that the BBASC chair and vice-chair should be the signatories with the remaining membership listed below. Tom Michel asked members to send any additional titles that they would like listed with their names. The group also agreed that the minimum fundraising goal of \$50,000 should be mentioned in the letter. Tom Michel asked the BBASC to get any additional comments on the letter to him by Friday, January 27th. Tyson Broad with the Sierra Club, a member of the Guadalupe-San Antonio BBASC, told the group that they should communicate to potential contributors that by supporting their work they are making an investment in the watershed. He also said that he would provide a copy of his BBASC's fundraising letter to look at, noting that they were able to raise \$150,000. Dale said that since a fiscal agent hasn't been identified yet, the goal is to get a commitment or pledge first, and then the money can be acquired once the agent is in place. Dale also said that to prevent overlap and duplication of effort, members can keep each other updated by e-mail as to who they've been targeting with their fundraising efforts.

After some discussion, a motion was carried to prioritize the three BBASC needs in the descending order of facilitation, report writing, and technical assistance. Next, a motion carried to authorize Tom Michel to solicit proposals from the two facilitators with BBASC experience. It was also agreed that the facilitators will be asked to include costs for report writing services in addition to facilitation services. Dale proposed that the facilitators' proposals be considered by the BBASC at the February meeting. In the event that the BBASC has to write its own report, Dale asked members to e-mail him if they are interested in participating in a report writing subcommittee.

BBEST presentation: Flow Regime Development Considerations – Tim Bonner
BBEST member Dr. Tim Bonner gave a PowerPoint presentation to the BBASC covering the many considerations of the BBEST in developing their flow recommendations (presentation posted to web page). He started by giving an update on the BBEST's

activity, saying that all of the report sections have been drafted by the members and should go to the Texas Water Resources Institute soon for further editing and formatting. Tim said they are still on track to meet the March 1st deadline for completion of their recommendations report. Beginning his presentation, Tim spoke of the diversity of water bodies in the state based on size, flow, and water chemistry. And when talking about rivers, the defining trait is the quantity of water that can be transported (i.e., river flow or discharge). He displayed example hydrographs from USGS gages, showing differences in flow patterns of a large and small river system. Tim introduced the concept of the natural flow regime, which states that the ecological integrity of river ecosystems depends on their natural dynamic character. If the natural character is maintained, then the ecological integrity should also be maintained. The question is how much can you change a system and still maintain ecological integrity. And the dynamic character of the flow regime can be quantified by deconstructing the hydrograph into components such as low flows (subsistence), base flows, and high flow pulses.

In reviewing the BBEST charge to recommend flow regimes that maintain a sound ecological environment, Tim said that the first step was to determine whether the subject environments are sound. Overall, the BBEST had a good amount of information to work with. They subdivided the entire basin into parts and evaluated the available scientific data. Ecological soundness determinations were based primarily upon fish collection data, since that was the most prevalent type of information. Tim said that the Salt and Double Mountain Forks are in pretty good shape. The Clear Fork is showing some signs of degradation but overall is still a good system. He did say that the middle Brazos has signs of degradation. The western tributaries in the middle basin have various signs of degradation yet remain in decent shape. The lower Brazos was deemed to be sound, as was the Navasota River, though there have been signs of some fish community changes. Tim said that the BBEST wasn't able to evaluate Oyster Creek, and they gathered only limited information on the San Bernard River. He concluded that with having sound environments in the basin for the most part, it follows that the BBEST should develop recommendations that strive to maintain these environments.

The second step in the BBEST's flow recommendations development process was to select the sites where the recommendations would be made. Tim said that the BBEST evaluated all the available USGS gages sites in the basin with the objective of ensuring an adequate period of flow records and sufficient geographic coverage across the basin. He displayed a list of 20 USGS gage stations that the BBEST selected based on those criteria. With the sites selected, the group then analyzed the hydrographs for any man-induced flow pattern changes in order to determine whether to use the full period of record or some subset thereof. He said that this evaluation also resulted in the recommendation of three seasons per year, which simplified the process. Then, using statistical tools such as HEFR, the BBEST deconstructed the flow data into its component parts. Tim displayed and explained an example HEFR results table for the Brazos River at Hempstead that showed the different levels of base flows and high flow pulses and the subsistence flows, all on a seasonal basis. He gave an example of spring high flow pulses and how implementation of hypothetical pulse flow requirements would affect those pulses. Tim then displayed several flow duration curves to illustrate

how the BBEST could conduct testing analyses to see the effects of environmental flow recommendations, water supply projects, and current and future water rights usage on historical hydrology.

Lastly, Tim explained that the development of flow recommendations and the adoption of flow standards are not the end of the SB 3 process. Because the BBEST recommendations can be viewed as hypotheses or predictions of what's necessary to maintain a sound ecological environment throughout the Brazos basin, they can be tested to determine their effectiveness. Tim said that this is the purpose of the adaptive management process where the BBASC develops a work plan that guides the future work of revisiting and refining the flow recommendations and standards, emphasizing that since river systems are exceedingly complex, there's a significant level of uncertainty associated with any attempts to prescribe how the system should work. Adaptive management can only serve to reduce uncertainty and improve predictions.

In response to a question about who will be doing the adaptive management work, Tyson Broad stated that the BBASC develops the work plan and comes up with strategies to meet the recommendations. He said that everyone needs to be involved in the process, such as potential donors of funds and other resource agencies involved in similar work (e.g., Senate Bill 2 flow studies, etc.). It's a long-term process. David Blackburn asked how sound ecological environment was defined. Tim said that it primarily has to do with the persistence and resiliency of communities over time. Ed Lowe asked about the reference to the middle Brazos being degraded and the possibility of adapting flows to improve conditions. Tim said that big river minnows are mostly absent from that section of the river and that it could be a quality or habitat fragmentation issue. Asked if there was a pre- or post-dam correlation with water quality, he said that there was little difference between the two. A discussion of the FRAT analysis ensued, and Dan Opdyke helped explain how the process would work in assisting the BBASC with balancing human and environmental needs. Horace Grace asked how many species have been lost and if we might get any back. Tim responded that five fishes species have gone extinct and greater than five have been extirpated, but it's hard to say how much of it is attributable to flow alterations. Cindy Loeffler (TPWD) added that strategies and flow recommendation refinements can help to restore historic conditions and the species that adapted to those conditions. Tim said that there can be a variety of reasons as to why a particular species is listed as threatened or endangered, but that Texas fishes in general are in good shape and the BBEST recommendations should be a good starting point in maintaining the system.

Identification/Discussion of Important Issues to Consider

No issues were discussed.

Set next meeting and discuss future meeting schedule

The next BBASC meeting was set for February 28, 2012 at BRA in Waco starting at 10 am. Dale proposed the 2nd and 4th Tuesdays of each month from March to August as potential meeting dates after the February meeting. Members were asked to check their availability on these dates for discussion at the next meeting. Deviations from that proposed schedule may be necessary in some instances (e.g., spring break, etc.).

However, Dale said that for certain the meetings will be getting longer as the group moves into the work of developing recommendations.

Agenda items for the February meeting include another presentation from the BBEST, appointing a report writing subcommittee, and a presentation from Ed Lowe. Gary Spicer, Bruce Turner's alternate, said that he has learned that Bruce will be retiring from his job soon and will not be able to continue on the BBASC. The group agreed that Gary, if he is willing, would be a suitable replacement for Bruce. The formal replacement will be taken up at the February meeting.

Public Comment

None.

Adjourn