

Texas Environmental Flows Science Advisory Committee

Wednesday, January 13, 2010

9:00 a.m. – 4:00 p.m.

REJ Conference Center

Robert E. Johnson Building

Austin, Texas 78701

MINUTES

*****These minutes are not intended to be all inclusive of the discussions and Q&A regarding the final environmental flow recommendations reports from the BBESTs. Additional materials, including the presentations made during the meeting can be found on the SAC website located at:**

http://www.tceq.state.tx.us/permitting/water_supply/water_rights/eflows/txenvironmentalflowssc.html

Call to order and Approval of meeting minutes from December 2, 2009

Chairman Huston called the meeting to order. The group unanimously approved the minutes from the December meeting.

Update on formation of Colorado and San Antonio SH groups

Cory Horan, TCEQ, informed the group that the Colorado and Lavaca Rivers and Matagorda and Lavaca Bays and the Guadalupe, San Antonio, Mission, and Aransas Rivers and Mission, Copano, Aransas, and San Antonio Bays basin and bay area stakeholder committees (BBASCs) were moving along in their process to set meeting rules and establish their expert science teams (BBESTs). He noted that both groups had formed BBEST subcommittees to formalize the nominations process, and nominees were currently being accepted.

Budget Update

Ruben Solis, TWDB, gave an update on the expenditures of the SAC members and requested that reimbursement requests from the SAC members be submitted as soon as possible.

SAC Member Paul Montagna informed the audience that a Freshwater Inflows Conference will held in Corpus Christi, TX on February 8 through 10, 2010. He noted that the purpose of the conference is to highlight the importance of freshwater inflows and to identify water management questions and approaches that protect estuaries.

Formation of Workgroup on Work Plan Development guidance

SAC Member Ed Oborny discussed the intent of the work plan guidance and stated that he would prepare a draft outline of the document for discussion at the February 11, 2010 meeting. Chairman Huston noted the importance of this document for both the BBASCs and the BBESTs. No schedule for completion of this document was set.

Liaison report on Trinity/SanJac BBEST/BBASC meeting

SAC Member Fred Manhart gave an update on the meeting of the Trinity and San Jacinto Rivers and Galveston Bay BBASC held on January 6, 2010. He noted that the Region H water planning group met in the morning and the BBASC meeting was held in the afternoon. He noted that the primary topic for the BBASC meeting was an update by the BBEST on their freshwater inflow

recommendations. He also noted that the BBEST had not reached consensus on their recommendations.

SAC Framework Document

Chairman Huston commented that this document was intended to provide guidance to the SAC members in their review of the BBEST reports. It was noted that this document was not intended to be formal, but a framework for which to start the SAC report and comments on the BBEST reports to the Environmental Flows Advisory Group. This document will be discussed at the February meeting to be finalized at the March meeting.

Presentation and Discussion – Trinity/SanJac BBEST report

Bill Espey, Chair of the Trinity/San Jacinto BBEST, introduced his fellow BBEST members who were present. He noted that though the group tried very hard to reach consensus, the BBEST members were split in their support of both instream flow and freshwater inflow recommendations. One recommendation was supported by a majority of the BBEST members, while an alternative recommendation was offered by a significant minority of the BBEST membership.

BBEST member Dave Buzan gave a presentation on the majority Instream Flow recommendations. He gave a brief background on the development of instream flow recommendations and explained that the report emphasizes the ecological rationale for the recommended flows. He stated that the starting point of the development process was to determine seasonality. Once that was determined the group selected sites for which the recommendations would be applied. He also explained the various flow regimes and the ecological importance of each, citing examples of the indicator species that the group had chosen. He then discussed the recommended flows at several of the selected sites.

BBEST Member Jim Lester presented the majority Freshwater Inflow recommendations. He explained the relationship of estuarine biology to freshwater inflows, discussing the effects on salinity, nutrients, etc. He noted that the BBEST held four workshops dedicated to the development of the freshwater inflow recommendations and noted that many individuals that do not serve on the BBEST participated in the workshops. He discussed the selection of indicator species that came out of the workshops and then discussed the various species and their salinity tolerance levels. He explained that TxBLEND was used to translate predicted salinity into the bay over the period of record. He noted that *Vallisneria* (wild celery) was the indicator selected to best establish salinity criteria in Trinity Bay, with *Rangia* and oyster condition being applied elsewhere. He noted that the recommendations were only starting point that need to be refined through the adaptive management process.

BBEST Member Tony Smith discussed the alternative freshwater inflow approach supported by the minority group. He stated that though the group made a significant effort to achieve consensus, nearly one-half of the BBEST members did not have confidence that the majority's freshwater inflow recommendation met the SB3 mandate. He explained that the recommendation should include a whole suite of indicator organisms, rather than the 5 identified in the recommendations report, due to the fact that several organisms have competing needs. He gave a brief overview of the legislative mandate and then discussed the indicator species, their salinity criteria, and the periods of concern for each species. He explained the necessary seasonal attainment criteria to assess historic frequencies for each species. He noted that the period of record used for the hydrodynamic model was 1983 to 2005. He discussed the uncertainties not addressed in the recommendations report and other issues that contributed to the minority group's lack of confidence. He noted that comments from the minority were incorporated into the overall report, and that the minority group supported using the Region H annual flow targets developed by the Galveston Bay Freshwater Inflow Group (GBFIG).

BBEST Member Richard Browning gave a presentation on the BBEST's comments and proposals related to instream flow recommendations. As the BBEST did not reach consensus on the instream flow recommendations, he presented the minority opinion on instream flow recommendations. He discussed how the sites were selected and the approach of analyzing the hydrology data from those sites using individual experience and best professional judgment. He discussed the period of record, trends, sources of flow, frequency of pulses, and external influences that were identified in reports provided by contractors. He explained that the minority group performed flow frequency analysis on all sites and compared the results to naturalized flows. He discussed the other disciplines the group looked into: water quality, biology, and geomorphology. In their analysis, the minority members concluded that a conditional phased approach was appropriate for their recommended flow regimes. He laid out additional "conditional" flow recommendations that need to be verified through adaptive management, explaining that these not to be considered formal recommendations at this time. In summary, the minority developed recommended seasonal flow amounts for subsistence and base flow, and overbank flows, at four locations, and conditional flow amounts at these and two additional sites, to be verified through adaptive management.

Throughout and following these presentations the SAC members questioned the BBEST members on various aspects of their recommendations and the approach used to develop those recommendations.

Presentation and Discussion – Sabine/Neches BBEST report

Jack Tatum, Chair of the Sabine/Neches BBEST, introduced his fellow BBEST members present at the meeting. He began his presentation by giving an overview of the basin characteristics and the unique aspects of portions of the watershed being located in Louisiana. He discussed the BBEST goals and objectives as well as the process and support the BBEST received from various agency staff, contractors, and the National Wildlife Federation. In discussing the BBEST's primary charge, he explained that the group developed a decision point chart which incorporated the various elements the BBEST considered in the development of their recommendations. He noted that various workgroups among the BBEST members had been formed to work on the various disciplines used in developing their final report, noting that 12 stations, 6 in the Sabine and 6 in the Neches basins, had been selected for identifying flow regimes. He stated that a HEFR matrix was developed for each site, and that in their final report there were qualifications and caveats to each matrix recommendation in order to account for uncertainty and what could be refined through adaptive management. He noted that due to the nature of Sabine Lake Bay, the flow regimes developed for the most downstream sites are the BBEST's freshwater inflow recommendations as they were deemed sufficient to meet the definition of a sound ecological environment for the bay.

BBEST member Matthew McBroom presented on the findings of the work group which reviewed the biological attributes of environmental flows for this basin and bay system. He discussed how the group developed their recommendations and analysis, looking at data identified through a literature review of the basin, from various projects by the Sabine River Authority (Texas Instream Flow Program studies, FERC relicensing), and from the National Wildlife Federation. He gave an overview of the ecological benefits of various flow components but noted that in spite of having a substantial amount of data there were several key deficiencies that are noted in the report.

BBEST member Sam Vaughn presented on the findings of the work group which reviewed the hydrological basis for the recommended environmental flows. His presentation focused on the group's process for the development of their recommended instream flow regime. He discussed flow regime components, the HEFR matrix, and attainment frequencies. He provided an example HEFR matrix for Big Sandy Creek and discussed how the group developed their instream flow recommendations for this

site. This same method was applied to all 12 sites selected within the basins. He also presented an example implementation method for the BBEST instream flow recommendations.

Throughout and following these presentations the SAC members questioned the BBEST members on various aspects of their recommendations and the approach used to develop those recommendations.

Planning for SAC preparation of BBEST report reviews

The SAC members began a discussion of how they would review the environmental flow recommendation reports from the BBESTS. Member Mary Kelly suggested that each SAC member provide a list of initial thoughts and ideas on each BBEST report to use as a starting point for the development of the SAC review process. The other members agreed to submit these initial ideas in bullet format by January 22, 2010. Chairman Huston will consolidate these bullets for discussion in a conference call set for January 28, 2010.

Future of HEFR/Potential Modifications

Dan Opdyke, TPWD, stated that the HEFR user's survey was distributed and he had received 13 responses but he had not analyzed the results at this time. He noted that he would like to compile the suggestions and implement the best ideas for HEFR modification. He will distribute the compiled list within a week as well as bring them to the February SAC meeting.

Public comments

Comments from meeting attendees were offered throughout the day.

Next Meeting – Schedule (Feb 11) and Agenda

The next meeting is scheduled for 9:30 AM on February 11, 2010, to be held at TPWD headquarters in the commissioner's hearing room. Agenda topics include:

- Work Plan Development
- Market Value Discussion
- Finalize the Implementation Document
- Other Items that may come out of the SAC conference call

Adjourn