

**Guadalupe, San Antonio, Mission, and Aransas Rivers and
Mission, Copano, Aransas, and San Antonio Bays
Basin and Bay Expert Science Team (BBEST)
Tuesday, December 21, 2011
San Antonio River Authority, San Antonio, Texas**

Minutes

Members Present:

Sam Vaugh, Greg Eckhardt, Mike Gonzales, Norman Johns, Debbie Magin, Liz Smith, Warren Pulich, Scott Holt, Ed Buskey

Call to Order

BBEST Chairman Sam Vaugh called the meeting to order.

Public Comment

Steve Raabe discussed lunch arrangements.

Follow up on Monday Agenda Items

Chairman Vaugh reviewed the discussions and items presented on Monday. He noted the changes made to the recommendation framework, criteria SAC will use to review BBEST reports, stakeholder list of responsibilities, budget summary, spreadsheet to account for hours, and the memorandum summarizing the status of the SB2 studies in the lower San Antonio. He also mentioned the discussion of the draft rules from the first two SB3 basins. He summarized decisions made on the focus of the instream flow program.

In general, the instream group is looking at a more complex structure like that for Big Sandy Creek in the Neches River Basin, initially focusing on 3 levels of base flow and multiple levels of pulsed flows, and to explore integrating hydro conditions (dry, average, wet, and seasonal). These are the directions given the selected contractor, Kennedy Resource Company (Kirk Kennedy).

Discussion of Estuary Work Elements and Issues (Pulich)

Warren Pullich gave a brief overview of the December 9, 2010 subcommittee meeting where they discussed flow analysis techniques and reviewed their analyses on focal species and fixed habitats. Members discussed the activities of the estuary subcommittee, gave an update on the progress of their work, and discussed how to move forward. The subcommittee agreed to use the distribution and abundance data for the rangia species in the Copano/Aransas estuary assuming similar salinity tolerances and made a decision to consider oysters in the Copano/Aransas system.

a) Results of Fixed Habitats Analyses (Pulich, Johns)

BBEST vice-chair Norman Johns gave a presentation discussing the salinity-zone approach for oysters and rangia. He discussed the techniques and limitations of this method. He explained the methods used to determine salinity suitability curves for oysters and rangia. Johns addressed refined fixed salinity zone

analysis, applying a salinity approach to oysters and rangia clams, and potential inflow criteria levels for the Guadalupe estuary. He presented a three step process: salinity prediction from TxBlend, weighted useable area prediction, and synthesis into a 2D matrix and regime. He discussed the different approaches for filling in areas without data and suggested using the synthetic salinities approach (verified by historical data) since the value added is worth any loss of certainty.

b) Use of Salinity Coverage Analysis for Motile species (Pulich, Johns)

Norman Johns discussed his findings on salinity versus habitat for motile species and incorporating antecedent conditions. Members discussed residence time in the bay where inflows can impact salinity levels that can take longer to dissipate and how mixing of multiple sources of flow will impact different habitats. He suggested changing the approach to begin in Copano Bay with oysters and rangia. Then, using the results from Copano Bay analysis to see what draft criteria levels to expect at Aransas Bay. The subcommittee will reassess their thoughts on motile species. Warren Pulich presented a review on white shrimp in the Guadalupe estuary. Using the same method, he produced a ranking of inflows for various periods. He noted that the salinity area is not fixed, but moves around with inflows. From the Coastal Fisheries data provided by TPWD, White shrimp catch data shows the clearest correlation with salinity. Plans are to determine a similar kind of flow regime as is being done for rangia to show that distribution is dependent on salinity zones and not geographically.

Warren Pulich said the 9 year analysis will be finished this month. Chairman Vaughn asked for a decision by the end of the month on what approach will be taken in the future. The estuary subcommittee will meet in early January (5th or 6th) to discuss topics as suggested today and report to the chairs with recommendations.

Related Action Items

Chairman Vaughn summarized future actions:

- Recommendations from the Estuary Subcommittee due to chairs after January subcommittee meetings
- Decision on what will be done with blue crab
- Analysis completed by Dr. Lee, TWDB, will be shared in advance
- Mark Fisher's presentation from TPWD to be provided

Future Meeting

The next BBEST meeting will be held January 20, 2011 at the GBRA office in Seguin.

Public Comment

No additional public comment

Adjourn