

Colorado-Lavaca Basin and Bay Expert Science Team
August 24, 2010 8:30am-2:30pm
Action Items and Consensus Decision Points

The CLBBEST met August 24, 2010 at LCRA in Austin. Steve Watters was unable to attend.

The BBEST will meet on Tuesday, September 21, at LCRA (room to be identified later).

Consensus Decision:

The group adopted the minutes of the July 21, 2010 meeting.

Estuary Team Update

The estuary team proposed including a narrative description of East Matagorda Bay and its sources of inflows without specifying a freshwater inflow regime for the bay. The team is considering adoption of the Matagorda Bay Health Evaluation study freshwater inflow regime for Matagorda Bay based on review of the study, and TPWD and NWF comments on the study. For Lavaca Bay, the team is considering applying the same analysis that was applied to the eastern arm of Matagorda Bay in the Matagorda Bay Health Evaluation study.

Water Quality Update

The water quality team met 8/23/2010 to finalize the water quality evaluation approach. The team will evaluate temperature, dissolved oxygen, chloride, nitrate+nitrite-N, and total phosphorus collected through the Clean Rivers Program. This data has been consistently collected under a Quality Assurance Plan since 1992. The team developed a spreadsheet tool that analyzes water quality variables to flow. A question was raised during the meeting about how to consider golden alga which has caused fish kills in the upper part of the basin. Gregg Easley, TCEQ, mentioned that TCEQ may be able to run QualTX in certain situations.

Action Item

The Water Quality team will complete analysis of water quality variables to flow by the September meeting. The team will also review the 303(d) list and Clean Rivers Program document (e.g. Basin Summary Reports) to identify water quality impairments that may be related to flow.

Riparian Update

The riparian team conducted a subgroup meeting on August 2, 2010. The team conducted a conference call with Steve Nelle- NRCS in San Angelo. At the conclusion of the meeting, the team decided that a trial assessment of the riparian community should be conducted at the Llano River near Junction, Colorado River near Ballinger, and Colorado River at Columbus gages. The methods and findings for the Llano River at Junction gage were presented. Steve Box encouraged the team to consider bald cypress as a key species. Thom encouraged the team to describe the rationale for choosing certain species. John Botros suggested the team address the importance of land management on riparian vegetation in its riparian discussion

Action Item

The team will complete riparian assessment at the Colorado River near Ballinger and Colorado River at Columbus. Additionally, the team will identify National Weather Service flood stage levels for each gage location and determine if these levels can be identified on TPWD's vegetation maps.

Geomorphology Update

Nolan is working on an approach to develop flows that will provide stable channels at the initial seven sites. The TWDB will also be collecting stream cross section data.

Action Item

Results for the seven sites will be presented at the September meeting. Cross-section data will be collected as needed.

Hydrology Update

The hydrology team met with the TWDB to discuss future conditions modeling. Three key topics were covered:

- 1) A future condition Water Availability Model (WAM)- Run 9 needs to be developed. This is primarily a BBASC issue, but needs to be coordinated with the BBEST, BBASC, and the agencies.
- 2) *Future flows are needed to run analysis in the different disciplines. The BBEST task is to develop flows the river needs- not to engage in looking at future flow conditions.*
- 3) Develop an example water project with the flow regime recommendations incorporated. This will demonstrate how the recommendations can be considered and what flows are passed to achieve the recommendations.

Action Item

Update the BBASC on the need to begin thinking about future conditions for WAM modeling. Participate in discussions with the BBASC and agencies.

(from Joe Trungale) The Colorado Hydrology Subcommittee meet Tuesday August 14th to discuss a method to develop a potential future flow hydrographs that might be used in evaluation of certain overlay analysis. Richard, Kirk and I were joined by the TWDB (Mike Vielleux, Nolan Raphelt and Ruben Solis).

Action Items include

1. Recommend that the TWDB/TCEQ work with the BBASC (supported by the BBEST) to develop expected future conditions WAM (Run9) sooner rather than later. This is a challenging task and it will be important for all parties to clearly understand the assumptions that are included in this model. (Assumed future projects, demands and return flows. What about projects in State Water Plan that may not be permitted yet?) The future conditions WAM can be used by the BBASC as a tool to evaluate the potential impact of imposing the BBEST's or BBASC's recommended flow regimes on new permits. New permits are defined as any permit or major amendment to an existing permit with a priority date after September 1, 2007.

2. The hydrology group discussed and concurs with the continued bottom-up approach to developing flow criteria based results of the investigations of the riparian, bay, biology, water quality and geomorphology groups. HEFR results may serve as a basis for initiating the process of determining flow criteria, however, these results are expected to be confirmed or revised by the various other discipline workgroups. The BBEST's final recommended flow criteria should represent a distribution of flows which are alone capable of maintaining a sound ecological environment. Dependency on planned future human water resources management, such as enforcing the prior appropriation system for a certain future water right configuration or the expectation for increased return flow discharges, should not serve as a failsafe for maintaining a sound ecological environment in the absence of sufficient BBEST recommended flow criteria.

3. An example application of the BBEST targets should be developed for application to an off channel storage project in the lower Colorado. Kirk will provide information on project configuration and base WAM models. Kirk will also provide daily naturalized flow (from USACE - SUPER model) to Richard who will investigate the potential of developing a daily time step WAM.

Fish Update

A team meeting is needed to develop the focal fish matrix. Dr. Bonner has developed a fish guild matrix of the Guadalupe-San Antonio BBEST that will be used as guide. The location for cross section data needs to be finalized.

Action Item

Set a meeting for fish guild discussion and cross-section locations.