

Colorado-Lavaca Basin and Bay Expert Science Team
November 16, 2010 8:30am-2:30pm
Action Items and Consensus Decision Points

The CLBBEST met November 16, 2010 at LCRA in Austin. Joe Trungale was unable to attend.

The primary goal of this meeting was to provide updates on work to be completed and set the schedule for the final two months of work.

Consensus Decision:

The group adopted the minutes of the October 19th meeting.

Melissa approved the meeting consensus points and action items from the September 21, 2010 meeting.

Action Item:

Joe Trungale should indicate whether or not he approves the October 19 meeting minutes.

Discussion: Budget Status

Dave Buzan circulated the updated budget for group review.

Discussion: Cross-Section Work

All cross-sections have been completed for the Colorado and Lavaca River basins. Dr. Hardy hosted training for the cross-section analysis tool on November 12 in San Marcos. Cross-sections collected by the TWDB and the TPWD will be used to produce habitat to discharge relationships for each site. The TWDB will conduct the hydraulic portion of the analysis and TPWD and BBEST will evaluate habitat suitability curves for the focal fish species. The analysis should be complete within a month.

Action Item:

TPWD and BBEST will work together to finalize the habitat suitability curves for the focal fish species by the December 21 meeting.

Discussion: Flood State Illustration

Lynne Hamlin presented a flood stage analysis for the Pecan Bayou at Mullin gage. The elevation of the NWS flood stage was plotted on a map displaying vegetation types and coverages. The flood stage line can be used to determine if the flood stage is sufficient to inundate the riparian communities. Overall, the BBEST felt that is was a good method to illustrate an overbanking level and its relationship to the riparian communities. The BBEST supports the TPWD moving forward with illustrating the flood stage contour for the remaining sites for which data are available.

The group also determined that a comparison of this method to any available HEC-RAS modeling would be useful. Thus, four sites will be used to compare the approaches- Pecan Bayou, Colorado River at San Saba, Llano River, and the Colorado River at Bastrop- as these sites have HEC-RAS modeling available.

Action Item:

TPWD will continue to develop the flood stage contour lines to be plotted on the figures of Texas Ecological System vegetation classifications.

Action Item: HEC-RAS Modeling

Bryan Cook will work with LCRA hydrologists to obtain HEC-RAS outputs. These will be provided to Lynne Hamlin for analysis and presentation at the December meeting.

Discussion: Water Quality Update

Steve Watters modified the water quality template to produce user friendly outputs. All sites in the upper and middle Colorado River (with sufficient data) are completed and the lower Colorado and Lavaca River stations are being evaluated. The water quality team will compile the outputs in preparation for the final report. The team will also review the water quality sections from the Cypress and Sabine-Neches basins reports. An overview of golden algae will be developed.

Discussion: Hydrographic Separation

Dave Buzan led a discussion about the current seasonal 75th percentile base:pulse flow separation approach. This separation approach yields some anomalies when seasons shift (e.g. winter to spring), and during periods with multiple pulses. Base flows are often identified on the trailing limb of a hydrograph, yet only persist for a few days. The group decided that this approach may be good for the first cut but may require some hand tuning to make sure flows are categorized appropriately. The team will document the changes to the hydrographs.

Action Item: Hydrographic Separation

Dave Buzan and Thom Hardy were authorized to evaluate and hand tune 6 gages (four hours total) from different regions in both river basins. The tuned hydrograph would be evaluated in HEFR to compare HEFR output based on the base:pulse flow separation at the 75th percentile flow by season to HEFR output based on the base:pulse flow separations checked and modified by best professional judgment. Joe, Thom, and Dave will meet to discuss how the BBEST should proceed regarding base:pulse flow separation.

Discussion: Freshwater Inflow Update

The Bay and Estuary team met and discussed data needs for Lavaca Bay. Gauged inflow from the Lavaca River and historical Lake Texana releases were combined with the TWDB's TxRR modeled output to provide total inflows to upper Lavaca Bay. The full period of measured salinity data was also acquired from the TWDB. A relationship between inflows and salinity was created for and will be used to develop the freshwater inflow regime. Salinity from the TWDB's TxBLEND model is being acquired for six locations in the bay at oyster reefs. Oysters and marsh remain the focal species for this system. The team has a meeting set to discuss the MBHE inflow regime for Matagorda Bay.

Discussion and Decisions: Document Preparation

The document preparation discussion included an update on the riparian analysis. There were three main areas discussed: Factsheets, Report Outline, and Writing Assignments. The group vetted many options for the fact sheets format and how they would relate to the remainder of the report. The group decided that each site would have a fact sheet consisting of the HEFR matrix table and key assumptions and findings from each overlay (e.g. water quality, riparian, geomorphology, etc.) A fact sheet template will be developed to ensure consistency amongst the sites. The group also discussed the outline and formatting of the report. Dave Buzan will incorporate the changes and distribute to the group.

There was some discussion about writing assignments. Steve Watters volunteered to write the water quality section. Dr. Hardy is completing a write-up on focal fish species and Okla will provide a write-up for the Concho Water Snake. Kirk Kennedy will resend the geographic scope section completed early in the year. The Bay and estuary team will divide the writing duties for the freshwater inflow section of the report. Dave Buzan will make additional writing assignments as needed.

TWRI will be providing document production services and will provide a style guide for the team. Richard will aggregate the documents components from the various authors and serve as a conduit to TWRI. He will also evaluate creation of an FTP site.

Action Item: Report assignments

Kirk will draft a sample back page for the fact sheet and will revise his geographic scope draft.

Action Item: Gage List Review

Some tributaries (e.g. Llano River) have multiple locations identified for evaluation while other have limited water quality or streamflow information. Bryan will provide a first cut at revising the list of gages.

Consensus Decision: Meeting Dates

The next meeting will occur:

December 21, 2010 8:30am-2:30pm

Meeting will be held at LCRA Shapiro Building S-433