

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

Tuesday, March 27, 2012 at 10:00 a.m.

Brazos River Authority Office

Waco, Texas

Minutes

Introductions

BBASC chair Dale Spurgin called the meeting to order.

Public Comment

None.

Review of Agenda

Facilitators Suzanne Schwartz and Margaret Menicucci reviewed the day's agenda with the group. No changes were made.

Approval of February 28, 2012 Meeting Minutes

The minutes of the February 28, 2012 meeting minutes were approved without changes.

Subcommittee Updates

Funding

BBASC vice-chair Tom Michel said that fundraising is going well and that nearly \$35,000 in pledges have been received. A handout was distributed listing the actual deposits that have been made to the fiscal agent, West Central Texas Council of Governments (WCTCOG). Gregg Easley (TCEQ) agreed to send out the W-9 forms provided by WCTCOG to the entire group.

Report Writing

Cindy Bartos said that the subcommittee held a conference call a week ago and she reviewed a handout that summarized the conference call (handout posted to group's web page: http://www.tceq.texas.gov/permitting/water_rights/eflows/brazos-river-and-associated-bay-and-estuary-system-stakeholder-committee-and-expert-science-team). A motion was made to approve Tom Conry as the report writing subcommittee chairman. All BBASC members were in favor.

Formation of Agenda Subcommittee

The BBASC was asked whether there was a need to appoint a subcommittee to handle the planning of the BBASC meetings. Currently, meetings are planned by Suzanne Schwartz, Margaret Menicucci, Dale Spurgin, Tom Michel, and Gregg Easley. A motion was made to keep the current planning group arrangement. All were in favor.

Refresher on BBASC Charge

Bob Huston – SAC Chairman

The Texas Environmental Flows Science Advisory Committee (SAC) chairman, Bob Huston, reviewed the important aspects of the BBASC charge as stated in the Senate Bill 3 legislation. He said that there are three main players in the process. First, the BBEST

presents their recommended flow regimes for the maintenance of a sound ecological environment, which the Brazos BBEST has already done. These recommendations are based purely on the best available science with no consideration of other uses besides that of the environment. Bob mentioned that the SAC should have their comments on the BBEST report finalized by their April 18th meeting. Next, the BBASC takes what the BBEST has provided and attempts to balance it with all the other needs in the basin. He stated that this is not an easy task, and there is not a lot of time to do it. He advised that each BBASC member get their particular issues out on the table to ensure that the BBASC understands the full extent of the other demands on the water. Once the BBASC develops its recommendations, TCEQ will undertake its own balancing exercise in writing rules. Their charge is to satisfy environmental requirements to the maximum extent reasonable while considering the recommendations of the BBEST and BBASC. Regarding the work ahead of them, Bob gave the BBASC two more bits of advice. He recommended that the BBASC use the BBEST as a resource, to ask questions and to evaluate alternative flow regime scenarios. Lastly, he advised that they remain conscious of their other charge, which is to develop a work plan as part of the adaptive management component of the legislation. As the BBASC works on their recommendations, they should keep a list of data gaps, unanswered questions, etc. and let those inform the work plan development process when they get to it.

Bob then answered questions of the BBASC members. Kathy Alexander from TCEQ and Cindy Loeffler from TPWD also provided information where noted. The following provides summary points from his responses:

- The SAC's meeting that discussed the Brazos BBEST report was recorded and is available from Gregg Easley.
- The SAC does not have funding available for the BBASC.
- Senate Bill 3 has two charges for the BBASC:
 - (1) develop recommendations for environmental flow standards, and strategies to meet those standards. Standards apply to new permits and amendments to existing permits. Strategies are an opportunity for BBASC to propose voluntary actions to meet the environmental flow standards
 - (2) develop a work plan, which contains a schedule for the next review of the environmental flow standards (EFS) rules and needed studies to improve our understanding of the system. Funding will be an issue, so these should be prioritized.
- On whether the BBASC is charged to consider a proposed diversion/reservoir project: BBASC can engage in its balancing process by considering the real world significance of environmental flow standards on a project, and a project on environmental flow standards.
- On what could be considered a strategy: SB 3 strategies may be different from the strategies developed in the regional water planning process. Cindy Loeffler added that a strategy is a way to meet a water need. A strategy may be developed to meet EFS for which water is not currently available.
- TCEQ has added environmental flow requirements to water rights permits for many years. They have used the Lyons desktop method to develop those requirements.

- Environmental flow standards will impact permits as follows (from Kathy Alexander):
 - New appropriations of additional water under new permits or amendments pending on or after September 1, 2007 and evaluated after the rules are adopted will be evaluated using the EFS in the adopted rule. These permits will contain conditions that allow them to divert if flows are available above what is needed to meet EFS. This is similar to what is done now, but with a more complex analysis.
 - Some BBASC groups have suggested that small permits may be exempt from portions of the requirements in the standards, for example pulse flow requirements.
 - Permits issued on or after September 1, 2007 but before the date on which the environmental flow standards are adopted will be issued under the existing TCEQ rules, but with a re-opener provision.
- Stakeholder groups have a tendency to focus hard on the BBEST report. Try to understand how a flow regime is constructed from subsistence (very low) to high flow pulses. Some constituencies represented on the BBASC may feel that a particular portion of the regime is more important to their use than another. Try to simplify the matrix of controls at various flow levels by thinking of what is important to you. Tools are developed to look at various consequences of the BBEST flow regime.
- In response to a question of what water the BBASC has to work with, how much is under contract, Kathy Alexander indicated that TCEQ can make a presentation on water rights. Cindy Loeffler suggested the BBASC might also benefit from additional attorney views, as was done for the Nueces River basin.
- Kirk Winemiller responded to a question of what tools are available to understand the impact of EFS on future demands, but noting that WAM modeling can be shown with two examples. It is not just volumes, but also infrastructure. The Seymour and Richmond gages are examples of two locations for consideration, and were chosen strategically by the BBEST.
- From Kirk Winemiller: BBEST report did not compare the current TCEQ environmental requirements to the BBEST recommendation. Some BBASC groups made that comparison.
- Lessons from the past five BBESTs: we need to understand the relationship of biological process to flows more directly. Currently, we must depend more on existing hydrology statistics. There is a more causal relationship for biology, yet SB3 has only the flow lever to use.
- From Cindy Loeffler: Regime – composed of different flows – is important. We know a lot about low and high flows and pulses. But we need more details and information we are getting from ongoing SB2 studies. We understand qualitative, not quantitative, as well.

Discussion with State Agencies (TCEQ, TPWD, TWDB)

Representatives of the TCEQ, TPWD and TWDB provided information and answered questions from BBEST members. The following is a summary:

TWDB

- Some BBEST money remains for interaction with the BBASC.
- TWDB may be able to assist with WAM runs, but the BBASC needs to determine what it needs quickly. Provide requests through Ruben Solis from the BBASC itself
- Probably don't need analysis at each gauge

TPWD

- BBEST can run flow regime analysis and FRAT
- TPWD can respond to biology questions
- TPWD will comment on BBEST report and proposed EFS

TCEQ

- Appreciates receiving a consensus recommendation from BBASC, including how this group defined consensus.
- Report should specify (1) numbers in flow standards, and (2) numbers that drive hydrologic conditions (triggers).
- Timeline: Rules for this basin are scheduled to be final by September 2013.
- TCEQ weights BBASC report, BBEST report, comments from reviewers and public
- When TCEQ balances, they use Run 3 of the TCEQ WAM. This model includes all water rights at their full amounts and does not include return flows.

Strategies: TCEQ does not keep a comprehensive list of strategies for environmental flows. TCEQ has a role in only some strategies. For example, TCEQ would not have a role in working with the Corps of Engineers on flood control releases for environmental purposes; TCEQ's role in voluntary water transfers would be to process the water rights changes.

Report on Major Themes from Facilitator Interviews Schwartz/Menicucci

The facilitators said that they have conducted individual interviews with a majority of the stakeholders. A handout summarizing the major themes of the interviews was distributed and discussed (handout posted to web page). After the handout was reviewed, a question was asked regarding the definition of consensus. Margaret explained that the BBASC's meeting rules contains a definition, and that this topic will be discussed at the next meeting.

Discussion of BBEST Report

BBEST Members

BBEST vice-chair, Kirk Winemiller, gave a presentation and answered questions of the BBASC. His PowerPoint presentation has been posted on the BBASC web page. BBEST member Phil Price and Kathy Alexander from the TCEQ Water Rights section also answered BBASC questions when needed. Answers below are from Kirk Winemiller, unless otherwise indicated.

PowerPoint slide was the BBEST environmental flow regime matrix for the Brazos River at Seymour gage. At times the group also looked at the slide with Figure 7.7, Flow Duration Curves for the Brazos River at Seymour gage.

Q: How do we identify a part of a flow regime that is important to us? (follow-up on a comment made by Bob Huston earlier)

A: Consider various flows on the matrix and ecological benefit that they provide, then decide how to value them in relation to human needs.

Q: What range of history did BBEST study for the Brazos and Seymour gage?

A: The period of record for each gage is in the BBEST report, Appendix A.

Q: How do you count pulses? If you have the flow that qualifies for a larger pulse, can you also count it as a smaller pulse?

A: The question relates to implementation rules. Higher pulses will count for lower pulses. Also, you do not have to create a pulse that is not naturally there. There may not be pulse flows in a dry year.

Q: What if the flows (in cfs) are between two pulse levels? Who makes that decision that you could use a lower flow pulse?

A: The pulse only counts when you meet the level identified in the matrix. TCEQ would include permit conditions in a water rights permit that would identify when you could capture the pulse. There may be some flows available for diversion after the regressed volume or the duration identified for that pulse have been met but before the larger pulse occurs.

Q: In the period of record, how often did all of these pulses occur?

A: Not every year. The regime recommendations were based on averages. BBEST made decisions about how to split historical flows into seasonal and other pulses.

Q: Does a permit holder have to make sure that these recommended pulses occur every year?

A: No. A permit holder is not required to create pulses. If water is there, then you count it. You restart counting for pulse flows each season and year. In a dry season permit holders won't be subject to pulse flows requirements because there are no pulses.

Q: If you get one very high flow pulse in the spring, are you done for that season?

A: Although that high flow pulse will also count as one lower seasonal pulse, the seasonal pulses are more frequent and the permit holder would need to let the other seasonal pulses pass (limited by regressed volume or duration) before it could divert from those pulses.

Q: Did the BBEST count reservoir releases in looking at the historical record?

A: (Phil Price answering) BBEST looked at the gage data, which includes reservoir releases because it reflects all flows through a gage.

Q: Does the matrix represent how you operate once you have your permit?

A: (Kathy Alexander answering) The environmental flow standards are not necessarily going to be the exact conditions in new permits, but they will be in TCEQ rules. TCEQ will develop permit conditions that enable the permit holder to comply with these rules. Depending on the size of the permit, there could be different permit conditions that will dictate how much water the permit holder can divert and how much the permit

holder must let pass, depending on how the stakeholders recommend that the standards be applied.

Q: Do you have to wait for peak flow to know where you are on the matrix? How do you keep track of that?

A: There will be implementation rules. The permit holder will operate in one section of the matrix (e.g. base high) until the flow reaches a volume that triggers the next level (e.g. seasonal pulse). USGS keeps data on flow levels. The concept is to have a software program available that enables the permit holder to follow the changes in flow level. The San Antonio/Guadalupe BBASC has considered a work plan item focusing on developing this software.

Q: How does a permit holder know if they are in high, medium or low base flows?

A: The BBEST recommended using the Palmer drought index. The permit holder would consult the index once at the beginning of each month for the region in which the permit is located.

Q: How did you decide what levels on the Palmer drought index corresponded to the various base flow conditions?

A: The BBEST evaluated historical flow statistics and ranked the upper 25% of base flows as a wet base-flow condition and the lower 25% of flows as a dry base-flow condition.

Q: What would the environmental flow requirements currently used by TCEQ look like on this matrix?

A: Existing permit conditions (developed by TCEQ using a desktop method – often referred to as the Lyons method) have one single value over two seasons. It reflects 40% or 60% median cfs per month, typically at the higher end of the base flow. During relatively dry seasons, the BBEST environmental flow regime may allow more diversions than with the Lyons method.

Q: How would the environmental flow requirements affect senior water rights?

A: (Kathy Alexander answering) The environmental flow requirements do not change the way TCEQ considers and protects senior water rights when issuing new permits. TCEQ must first determine whether there is water available after meeting the needs of senior water rights holders. Then, if TCEQ determines there is water available, the new permit would include conditions that protect senior water rights holders and the EFS.

Q: How did the BBEST balance the problem of sedimentation of reservoirs with the ecological need to move sediment in the river system?

A: BBEST did not try to do that balance. Reservoirs trap sediment and that has impacts downstream.

The following answer is based on PowerPoint slides that showed pictures of oxbows in the lower basin, a chart naming oxbows and the number of connections to the river over a period of years, and the BBEST matrix for the Brazos River near Richmond.

Flows at the lower end of the basin have the ecological function of connecting to oxbow lakes. Regular flows will not fill an oxbow lake; it requires a high flow pulse.

The BBEST recommended more frequent smaller pulses in the upper part of the basin because of their importance relative to less overall flow.

Q: Hydroelectric generation stopped at Possum Kingdom Lake in 2010. Is the change large enough to impact the BBEST recommendation?

A: (Answered by Phil Price) Daily flow is important and artificial daily cycles could have an impact. BBEST worked with daily data, which was constant even with hydroelectric power operations. Those operations may have created slightly higher daily flows. Flows could increase in the future with increased downstream demand. The BBEST also included flow data from the pre-dam period.

Q: Did the BBEST estimate how much flow in the river is from groundwater-based "waste water" return flows?

A: BBEST did not consider that because of time and resource constraints. (Kathy Alexander answering): TCEQ does not look at return flows in their permitting model for new water rights regardless of the source. If TCEQ gets a permit request to use return flows, they will look at the impacts on senior water rights and the environment.

Q: The next to the last sentence in the Executive Summary states the environmental flows alone are not ecologically sufficient? What does that mean?

A: Kirk Winemiller explained that from his personal standpoint and knowledge of the lower basin, he was concerned that the EFR may not provide sufficient pulses to the oxbows or sufficient movement of sediments in the lower river reaches and estuary. Here he referred to the "purple line" scenario that was simulated and presented in Figs 7.7 and 7.8. If the E-flow recommendations were to be enacted under the implementation rules provided by the BBEST (that's the key), and all water except the E-flows were diverted under the "infinite infrastructure" scenario, then these flows under these implementation rules would not protect a sound ecological environment according to Winemiller's interpretation of the BBEST analyses. He emphasized that environmental flow prescriptions only have meaning in the context of an accompanying set of implementation rules that influence attainment frequencies of the E-flow components in the real world.

Q: Can you overlay the Lyons method on the Seymour and Richmond gages?

A: Yes. This can show the relative effect on potential water availability of the Lyons method versus the impact of the proposed environmental flow regime.

Q: We have a little over four months to complete our work, and a lot of gages. Should we focus on 3-5 gages? Can BBEST identify priority gages or gages that are representative of portions of the basin? Could gages be grouped in order to be treated similarly? Could we make the regime less complex?

A: Gages could be grouped, as representative or to treat similarly. For example, the Richmond gage may be useful and representative for the lower basin. The middle basin has similar characteristics, and gages might be grouped. In the upper basin one also could aggregate, and could do so for the Little River, etc.

Discussion of BBASC/BBEST Coordination

The facilitators led a discussion of how the BBASC should interact with the BBEST. They explained that at each meeting there will be opportunity to ask questions of BBEST members that are present. In addition, as questions arise at the meeting that require some kind of analysis or a more detailed response, these can be forwarded to the BBEST for a group response. And as questions come up in between meetings, a procedure can be put in place to ensure that these questions get to the BBEST in an efficient and transparent manner. It was proposed that any questions that arise in between meetings should be forwarded to Gregg Easley of TCEQ who would then compile these questions and submit them to BBEST chair Tom Gooch, who would assign each question to appropriate BBEST members for a response. All BBASC members present approved of the proposed approach. The facilitators said they would send the two questions that came up in today's meeting, regarding the incorporation of Lyons numbers into the BBEST's flow duration curve analysis and the potential for aggregation/prioritization of all the gages, to the BBEST for their response.

Discussion of Moving Forward on Facilitation, Reporting, Technical Assistance

Regarding facilitation, Dale Spurgin said that a contract between the Center For Public Policy Dispute Resolution and West Central Texas Council of Governments hasn't been formalized yet. Suzanne Schwartz said that she could be working on a budget and distribute it for comments. Tom Michel said that the contract should be retroactive to cover costs that the facilitators have already incurred. No BBASC members objected to this. When asked, Suzanne reminded the group that their proposal for just the facilitation, not including report writing, was \$31,000. There was discussion of how to account for potential technical assistance needs. Additional information would be brought to the next meeting regarding how much the BBEST would be able to provide technical support to the BBASC. Dale recommended that the funding subcommittee work on a proposed contract with the facilitators and work with Dale on coordinating with WCTCOG and getting their approval by the next meeting. No further comments were made on the report-writing efforts through the subcommittee. Dale said that he envisions forming a technical assistance subcommittee at a future meeting once additional information on existing assistance resources is provided.

Begin Development of BBASC Goal

Facilitators indicated that their interviews of members showed that most felt a consensus recommendation of the BBASC would be "*adopting environmental flow standards that protect the environment and provide water for human needs and that are easily implemented and understood.*" BBASC members provided the following thoughts when asked by the facilitators to discuss what this means to them, personally, when they consider their interests as well as the Brazos River basin as a whole:

- Provide a foundation to preserve or improve a way of life for our children
- Clear, concise, convincing and short
- Brazoria County has a sustainable supply for industry, agriculture, municipal and other needs for our children
- Effective and useful, and not wasting everyone's time.

- Balanced harmony between ecological demand and diversity of uses that achieves a sustainable future
- Balance and clarity
- Understand what we've developed
- Future most important: cities, industry, agriculture, etc. – include long-term ways to have water in the river and strategies
- Understandable: we understand what we are doing; we are able to explain it to others. Simplify.
- Balanced: strikes a balance between all we are looking at
- Comprehensive
- Holistic
- Balanced – clearly define “other demands.” What does human needs mean?
- Protect the environment – try to get as close to the natural flow of the river as possible. Narrower definition.
- Don't impact groundwater
- Protect agriculture
- Healthy, flowing river for present and future
- All have competing needs: everyone has reasonableness. (Not walk away mad)
- TCEQ has a reasonable report
- Not easy to do.
- Balance environmental system between all parts of the basin, provide flow for various needs
- Easy implementation. Simpler to understand and convey.
- Include strategies to meet standards
- Most efficient use of every drop of water: new uses; conservation; new ways to farm
- Simple, understandable, explainable
- Legislature gives us a raise!
- Recognize water as a life sustaining resource. Concern about losses to agriculture (as an example of impact).
- Work together
- Respect differences
- Hear what others need in a calm forum, and communicate well with others
- Networking
- Consensus will be an accomplishment

Identification/Discussion of Important Issues to Consider

No issues were discussed under this item.

Set Next Meeting and Discuss Future Meeting Schedule

The next meeting was set for Tuesday, April 24, 2012 at BRA offices in Waco. The following meeting is scheduled for Wednesday and Thursday, May 30-31, 2012 at BRA. The June meeting is still tentatively set for Wednesday and Thursday, June 27-28, 2012, but members were asked to keep the 2nd and 4th Tuesdays in June open in the event the group needs to change this part of the schedule.

Possible Topics for the April Agenda

- Explanation of the laws and operation of surface water rights in Texas
- Discussion of BBEST advice regarding how to handle gages, understanding the projects analyzed in the Report, and considering additional technical needs
- Group goal development
- Consensus building steps; re-evaluate ground rules to ensure they work for this part of the BBASC process

Parking Lot

- Understand the system operations permit
- Need for more modeling runs and how to obtain them (cost and time)
- How BBEST numbers (EFR) compare to existing water

Quick Meeting Evaluation

What worked Well	What needs improvement
Good participation by members	More breaks during the day
Lunch conversation	
Understanding BBEST Report improved	
Facilitation helped	

Action Items Review

- Get BBEST budget information to assess availability to provide additional technical assistance to the BBASC
- What did Bob Huston mean by “some elements of flow may be more important to different people than other elements of flow”? (paraphrased)
- Ask BBEST for analysis of some gages and/or projects using the Lyons method; consider doing Lyons method on representative gages
- Ask BBEST to help BBASC prioritize gages that may be representative in the basin or provide advice on grouping gages; understand the pros and cons of identifying representative gages or grouping gages
 - Note: BBASC members discussing this action item explained that they want to work efficiently and use efforts well to reach consensus

Public Comment

None.

Adjourn