

# Trinity and San Jacinto River Basins and Galveston Bay BBASC Meeting

Wednesday, June 7, 2017 at 1:00 p.m., San Jacinto River Authority Office  
1577 Damsite Road, Conroe, Texas

## Minutes

**Members Present:** John Bartos, Chair; Jace Houston, Vice-chair; Scott Alford; Carl Masterson; Tom Michel; Pudge Willcox; Glenda Callaway; Ken Kramer; Lori Traweek; Kevin Ward; Gene Fisseler; Glenn Lord; Mike Turco; Wendell Null; Chang Lee (alt. for Denis Qualls); Paul Nelson; Tracy Woody.

### Call to Order

Chair John Bartos called the meeting to order and members introduced themselves.

### Public Comment

No public comments were made at this time.

### Approval of Meeting Minutes

The minutes from the November 2, 2016 meeting were unanimously approved by members.

### Nominations Committee Report

The TSJ BBASC filled vacancies for the following stakeholder interest groups: municipalities, electric generation, refining, and public interest groups. Nominees Yvonne Forrest, Breck Sacra, Sherman Hampton, and Carl Masterson, respectively, were voted to fill the vacancies. The new members in attendance joined the BBASC and participated as members for the remainder of the meeting.

### Status of Work Plan Approval by the Environmental Flows Advisory Group (EFAG)

Chair Bartos stated that the TSJ BBASC submitted their work plan on May 4, 2012. The work plan has not been approved by the EFAG.

### Work Plan Project Reports

#### I. LIDAR Acquisition and Flow Assessment for Middle Trinity

Webster Mangham, Trinity River Authority, gave an update on the ongoing study concerning LIDAR Acquisition and instream flow assessment in the Middle Trinity River. The project is evaluating the physical and ecological impacts of the instream flow standards. The tasks for the project include data collection, processing, and analysis. The work is in the analysis stage currently. The field work collected data on long reaches (35-40 miles of river) and more intensive collection on smaller reaches. The data collected included riparian survey, flow comparison, topographic surveys at benchmark sites, game camera photos, bathymetry, and sediment samples. Another task was to coordinate with other instream study efforts. Mr. Mangham met with Texas Commission on Environmental Quality (TCEQ) regarding inputting data into SWQMIS. The data can't be included in the SWQMIS database, but Mr. Mangham is hoping to find another way to make data available to the public. Mr. Mangham also met with a group doing similar work in other basins, Bio-West, and they discussed different methodologies

for riparian work. The project in the Trinity identifies all trees in a transect, which helps identify riparian needs and evaluate if pulses are meeting those needs. Bio-West picks 200 points in 3 quadrants of the riparian area in a reach. Then, they use a meter square placed at those random points and identify every tree in that square. The report should be submitted on time in August 2017.

Chair Bartos asked what follow-up work could be done after this project. Mr. Mangham responded that integrating the fish and mussel data from the SB2 work with the work in this project would be beneficial. There are also some river sites that could use additional study. More in-depth study of velocity, especially compared with mussel data, would be interesting. Dr. Jim Lester asked about the whether the period of study of this work compares to past periods of data collection. Mr. Mangham stated that the historic flooding during this dataset is fairly unique. Wendell Null asked for further information about potential work on mussel habitat. Mr. Mangham responded that mussels are a big issue because of the potential for federal listing of some Texas freshwater mussels. Data from this project may contribute to how velocity may affect mussel habitats.

## II. Freshwater Bioindicators in Galveston Bay

Dr. Antonietta Quigg was not able to attend the meeting. Dr. Quigg will send a handout with information about the study. Tony Smith, BBEST member, is a subcommittee member for Dr. Quigg's study and offered a status update on the work. The study objective is evaluating the sound ecological environment in Galveston Bay. The project is looking at coastal fisheries data and species diversity. The study team is also looking into relationships with salinity, turbidity, temperature, and other metrics. The subcommittee had a meeting on January 9, 2017 to solicit questions from BBEST members to guide Dr. Quigg's study. Preliminary data shows significant relationships between diversity and temperature. Dr. Lester mentioned *Valisineria* disappeared from sample sites during the drought. For SB3, if a characteristic species is absent, then the bay is considered to be an unhealthy environment. Dr. Lester said the plant did come back after the drought. Dr. George Guillen mentioned that it may be more complicated than a mere presence/absence study.

## III. Determination of Freshwater Inflow Volume

Zulimar Lucena, United States Geologic Survey (USGS), gave an update on phase 2 of a study aimed at determining freshwater inflow volume from the Trinity River into Trinity Bay. The lower Trinity has many alternative channels and wetlands that make characterizing flow patterns complicated. The study is focusing on the lower portion of the river near the Wallisville gage. Previous studies found that streamflow at this gage does not match what is coming through the river at gages upstream. The flows divert through wetland areas, such as Old River. The idea was to measure flow at the Wallisville gage and Old River gage and add them to determine if flows would correspond with flows upstream during high flow conditions. Also, the study is evaluating the flows south of the confluence of the Trinity and Old River near the Bay. During high flow conditions, water flows backward upstream into Old River from the mainstem of the Trinity River south of the Wallisville gage. A portion of water in Old River flows through a channel directly to the Bay, avoiding the mainstem Trinity River. The USGS presented a

streamflow table that accounted for differences between streamflow upstream, at Wallisville, and at Old River. The accumulated streamflow of the Wallisville and Old River gages should account for flows received at upstream sites. During some events, the flows are accounted for and during other events the flows were lost through other channels or stored in wetlands. The USGS intends to create a look-up table to predict the flows in Old River with measurements from the other study sites. They also want to sample at different flows during a variety of conditions leading up to high flow events to evaluate how saturation of the wetlands plays a role. USGS still needs to sample at some flow levels that have not yet been received this year.

The project is also determining whether water flowing through wetlands affects water quality. Preliminary data shows sediment levels are noticeably higher at Wallisville than at Old River. As an example, during one sampling event the sediment load at Liberty, an upstream gage, was significantly higher than sediment at Wallisville and Old River combined. The continuous sediment surrogate model for Wallisville is currently available online at <https://nrtwq.usgs.gov/>. The USGS requested a no-cost extension to collect more data at different flow levels. The new project end date is August 2018.

Chair Bartos asked if this was a normal year of rainfall. Mike Lee, USGS, said the flow events have not been high enough for sufficient data collection. Glynn Leiper asked if any projects were looking at salinity of the river and bay. Cindy Loeffler, Texas Parks and Wildlife (TPWD), mentioned that there is a data sonde collecting continuous salinity data in Trinity Bay and TPWD collects salinity data when doing fishery sampling. Mr. Lee stated that USGS takes salinity samples at Wallisville and other Trinity gages. Brandt Manchen, Sierra Club, asked if USGS could evaluate how much sediment was removed before flows enter the bay. Ms. Lucena responded that USGS would have to sample for sediment loads farther upstream, but the important question is how much sediment is going into the bay. Kevin Ward mentioned that the BBASC may consider looking at their work plan and possibly add a goal to evaluate loading in other areas of the river. Mr. Mangham mentioned that new LIDAR would be available later in the summer which would help evaluating areas of salinity. Mark Wentzel, Texas Water Development Board (TWDB), mentioned that TWDB has salinity data and models that he will send to Ms. Rutledge to distribute to the group.

### **Legislative Update**

Ken Kramer provided an update on the 85<sup>th</sup> Legislative Session. Many bills relating to water issues were filed, but few passed. The money requested for environmental flows studies by TWDB was funded in the amount of \$2 million, but will cover more goals than just studies for Senate Bill 3. TWDB will give an update soon on the exact amount that is available for future studies. Chair Bartos stated that a subcommittee will convene to consider funding available and future work. A proposed bill that did not pass dealt with Aquifer Storage Recovery (ASR) projects for excess flows. Mr. Kramer emphasized the importance of educating leaders on environmental flows issues.

### **Recommendations for Future Work Plan Projects**

Chair Bartos reminded the subcommittee to be prepared to update the scope of work and to make recommendations when future funding is available. This process was done in October 2015 for the current funding cycle. TWDB usually adopts a budget in August and then funding becomes available.

### **Agency Update**

Jade Rutledge, TCEQ, had no updates. Ms. Loeffler, TPWD, gave an update on the loss of some essential funding for state parks. Mr. Wentzel, TWDB, gave an update related to the SB2 process. The last time bathymetric surveys were done was in 2015 and he is hoping that further sampling can occur this summer. As far as the legislative session, flood warning systems received significant funding which will help with additional USGS stream gages. Mr. Wentzel also stated that TWDB will call for volunteer reviewers for reports that are received in August 2017. TWDB will send out an email with funding information and a request for volunteers.

### **Public Comments**

No public comments were made at this time.

### **Next Meeting**

Chair Bartos stated that the next meeting will be paired with a future Region H meeting in September or November. Chair Bartos will decide on a meeting date depending on the timing of issues and whether a meeting is necessary.

### **Adjourn**