

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

Wednesday, November 2, 2016 at 1:00 p.m., San Jacinto River Authority Office  
1577 Damsite Road, Conroe, Texas

## Minutes

**Members Present:** John Bartos, Chair; Carl Masterson (Alt. for Terry Anderson); Tom Michel; Pudge Willcox; Glenda Callaway; Ken Kramer; Lori Traweek; Kevin Ward; Gene Fisseler; Glenn Lord; Lisa Lattu; Wendell Null; Denis Qualls; Dan Buhman; Paul Nelson; Adam Sinclair.

### 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 October 7<sup>th</sup>, 2015 meeting were unanimously approved by members.

### Nominations Committee Report

Mr. Zach Holland representing Groundwater Conservations Districts resigned from the Trinity BBASC. The Nominations Committee nominated Mike Turco to fill the vacancy. Chair John Bartos called for any other nominations. No other nominations were received. Glenda Callaway mentioned that he would have to recuse himself from voting on work plan studies in which he had an interest because he is a BBEST member. Mr. Turco was unanimously approved by members to serve on the BBASC.

The nominations committee informed members that both Glynn Leiper and Jun Chang, who represented Refining and Municipalities, respectively, have retired from their jobs and resigned their positions on the BBASC. Lori Traweek stated that the committee will look for possible replacements to serve as representatives for the interest groups. Members also suggested to the Nominations Committee that Carl Masterson replace Terry Anderson as representative for the Public Interests representative.

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

Jade Rutledge, Texas Commission on Environmental Quality (TCEQ), stated that two new members had been appointed to the EFAG. There has not been a recent EFAG meeting and no future meeting is scheduled at this time.

### Work Plan Project Reports

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

Webster Mangham, Trinity River Authority, reported on the ongoing study concerning LIDAR Acquisition and instream flow assessment in the Middle Trinity River. The currently funded study consist of collecting field data at four SB3 USGS gage sites, data processing and analysis and coordinating with other instream study efforts across the state, such as with the Brazos

River Basin environmental flow studies. The SB3 USGS gages selected for the study are Romayor, Oakwood, Dallas, and Grand Prairie. Data collection occurred near these locations in the previously funded study. One additional measurement point was added for this phase near the Grand Prairie gage. Mr. Mangham stated that there is a concern as to how to archive the data being collected efficiently so that it is easily accessible for future studies. He stated he would like the data to be incorporated into the statewide Surface Water Quality Monitoring Information System database (SWQMIS) which has a Quality Assurance Project Plan (QAPP). However, for data to be included in TCEQ's SWQMIS database it must be collected in accordance with an approved QAPP and at present the funded environmental flow studies are not designed under an approved QAPP.

Chair Bartos asked about the timeline for the project. Mr. Mangham said that the study is on track to submit the final report to the Texas Water Development Board in August 2017. Dr. Jim Lester asked about whether Mr. Mangham would post the data online for the public access. Mr. Mangham responded that he would be willing to share his data but a preliminary meeting would be needed to discuss details of the data with interested members of the public. Dr. Lester mentioned that a BBEST meeting may be the appropriate venue to discuss the data.

## II. Freshwater Bioindicators in Galveston Bay

Dr. Antonietta Quigg was not able to attend the meeting. Dr. Quigg sent a handout with information about the study. Dr. Lester mentioned that the Texas Water Development Board set up a technical guidance committee for this project and the first teleconference meeting was held in October 2016. Dr. Lester said the committee will ensure that the study team addresses the goals in the work plan and strongly coordinate with the BBEST to ensure the results of the study are helpful to the BBASC. He also asked about whether Woody Woodrow, BBEST member, was on the committee and will be speaking to the Texas Water Development Board (TWDB) about adding him.

## III. Determination of Freshwater Inflow Volume

Zulimar Lucena, United States Geologic Survey (USGS), gave an overview of phase 2 of a study aimed at determining freshwater inflow volume from the Trinity River into Trinity Bay. The USGS had previously noticed that there was a large discrepancy in the amount of water between the Wallisville gage and that recorded flowing into Trinity Bay. The preliminary results of phase 1 of the study found that water is flowing through the wetland areas and Old River rather than directly into Trinity Bay. Ms. Lucena stated that the total flow between Old River and the Wallisville gage account for the discrepancy; however more data collection is needed. The current project will continue collecting nutrient sediment concentrations and will continue the index velocity gage operation at Wallisville site. In addition, the USGS will evaluate where water flows during high flow events to quantify more accurately how much water is flowing through Old River. They also plan to identify whether conditions before events affect flow patterns and collect water quality samples in additional lower watershed sites.

Wendell Null asked whether tidal flow was accounted for in the results. Ms. Lucena responded that the method the USGS uses accounts for tidal flow, but during the high flow events the

tides aren't affecting the water movement much. Glenda Callaway asked about water flowing into Old River from the West. Ms. Lucena stated that the water is coming in through another channel from the west, but the events are likely driven by Livingston releases and not solely high flows.

### **National Wildlife Federation Research in the Trinity Bay**

Dr. George Guillen, BBEST member, presented work on Trinity River Delta *Rangia cuneata* and *Vallisneria americana* in relation to freshwater inflow. These two species are being used as bioindicators. There have been previous studies on *Rangia* in Galveston Bay by Texas Parks and Wildlife Department (TPWD) and other researchers. Data for this study was collected from January to February 2016 (*Rangia* and *Vallis.*) and August to September 2016 (*Vallis.*) The team used an airboat and multiple types of gear, such as clam dredges and clam rakes, for sampling. The team measured river discharge, temperature, salinity, dissolved oxygen, turbidity, and sediment size. They evaluated changes in *Rangia* occurrence, density, condition, and morphometric characteristics. During the sampling period, salinity decreased and *Rangia* was present at most sampling sites. Dr. Guillen stated that it is difficult to discern any pattern in abundance or presence/absence of *Rangia* between years and river discharge and salinity. Compared to previous studies, the average value of percent total weight of *Rangia* increased from previous studies (30.3% in current study and about 12% in previous studies). For *Vallisneria*, the species was detected at multiple sample sites in locations that were not detected in previous studies. During 2015-2016, river discharge likely reduced salinities from median of 5-10 psu during 2014 to < 3 psu during early 2016 which is more supportive of long-term *Vallisneria* survival. Overall, the team observed a positive relationship between Trinity River discharge and salinity in the delta which creates conditions supportive of this species. Dr. Guillen's recommendations include: future monitoring at index sites and random grid to increase statistical power and evaluate trends; incorporate automated sondes (SCT) in shallow water; incorporate other bioindicators; modify deep water benthic dredge (longer teeth) to increase effectiveness in deeper water; adjust detection probability of *Vallisneria* for effects of water clarity; and potential incorporation of UAV or other remote sensing survey methodology.

Dr. Lester asked if there are other sampling methods for *Vallisneria*, other than visual identification. Cindy Loeffler, TPWD, stated that Coastal Fisheries is currently adding to the sampling protocol for habitat data. Coastal Fisheries will be documenting habitat features in vicinity when collecting bag seine data. Dr. Lester commented on the absence of *Vallisneria* in 2011, due to drought conditions and that that a sound ecological environment means that you sustain the full complement of native species in perpetuity. That would imply that the basin did not have a sound ecological environment during the drought because a known species disappeared. Chair Bartos asked about the species presence in the bay currently. Dr. Lester responded that the species is currently found down to the seed bank and has reestablished since the drought. Glenda Callaway asked if that means it truly disappeared if beds were currently in existence. Kevin Ward commented that it is a resilient species and that its reappearance confirms it is a good bioindicator. Dr. Guillen reiterated that there are not long term data sets available for this species. The work will be continuing hopefully through 2016 and into 2017, if funding is available.

### **Legislative Update**

Ken Kramer provided an update on potential legislation that may be filed in the upcoming legislative session that could affect the basin. He indicated the water topics likely to be discussed by the legislature will be regional water planning, groundwater management, and water markets. In addition, the TWDB has made an appropriations request for the coming biennium in the amount of 2 million dollars for the continued study of environmental flows. In the interim, the House of Representative's Natural Resources Committee discussed addressing excess freshwater inflows to bays and estuaries. Mr. Kramer stated that several legislators noticed the major rainfall events over the past few years and are considering how to store water in excess of what is needed for environmental flows. Some have proposed using Aquifer Storage Recovery (ASR) projects. This issue was discussed at the afternoon hearing on October 13, 2015 by the House's Natural Resources Committee and that interim hearings are archived online for reference.

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

Chair Bartos wanted to remind the committee to keep the work plan in mind if funds are appropriated to the BBASC in the upcoming biennium. During the current funding cycle, a subcommittee was formed to evaluate the work plan and scopes of work as well as make study recommendations. Chair Bartos asked if the members would continue serving on the subcommittee in case future funding was awarded. The subcommittee members in attendance agreed to continue serving.

### **Agency Update**

Jade Rutledge, TCEQ, introduced herself as the facilitator for the BBASC and Kenneth Coonrod, TCEQ, as her backup. Ms. Rutledge reiterated the two new appointments to the EFAG and that an announcement will be sent out shortly. Ms. Loeffler, TPWD, gave an update on the desalination bills that passed during the past legislative session. One of the bills assigned TPWD and the General Land Office to study potential zones for diverting seawater and discharge of desalination waste. The TPWD will be taking impingement and entrainment into account. The TCEQ will adopt the rule package, but the impingement and entrainment portion may be handled separately. The deadline for the studies is 2018. Mark Wentzel, TWDB, stated that the SB2 work on the middle Trinity River has been delayed by high flows in 2015-2016. Caimee Schoenbaechler, TWDB, has requested LIDAR data from TNRIS (Texas Natural Resource Information System) as part of the regularly scheduled data collections in the Trinity Delta. Chair Bartos requested an update at the next meeting regarding future funding.

### **Public Comments**

No public comments were made at this time.

### **Next Meeting**

Mr. Kramer urged more frequent meetings for the BBASC. March would be a good time frame for the next meeting which would be a few months into the legislative session. Chair Bartos suggested June as another alternate time for the next meeting following the Regional Water

Planning Group meeting. Tom Michel commented that the group could hear updates from the study teams at that time.

**Adjourn**