

Galveston Bay Freshwater Inflows Group 06 January 2004 Meeting Summary

Participants Present: Jim Adams, John Bartos, David Brock, Richard Browning, Reed Eichelberger, Woody Frossard, Guy C. Jackson, Ken Kramer, Cindy Loeffler, Carl Masterson, Junji Matsumoto, Bob McFarlane, Bruce Moulton, Paul Nelson, Linda Shead, Ann Sheridan, Mary Ellen Whitworth, Pudge Willcox, Woody Woodrow

Support Team Present: Glenda Callaway, Greg Graml, Pris Weeks, Jim Dobberstine

Others Present: David Parkhill (TCB), Fred Werner (USFWS)

1. The Galveston Bay Freshwater Inflows group met at the E.B. Cape Center in Houston, Texas. Self introductions were made.
2. Approval of the agenda and the time allotment was made.
3. **Weeks** noted that the summaries for the prior two meetings are not yet complete because there was not a staff person to complete them. This has been remedied, and summaries are expected to be complete within the next month and sent out for approval.
4. The following updates were provided by GBFIG members:
 - a. **Callaway** commented regarding Senate Bill 1639, which requires a 15 member study commission. Discussion by **Loeffler** and others followed regarding the make-up of the commission. **Callaway** inquired as to the first three appointments. **Loeffler** responded that these were the
 - i. Presiding officer from Texas Parks and Wildlife
 - ii. Chairman of the Texas Water Commission
 - iii. Chairman of the TWDB

Loeffler also read the legislative mandate, noting that the first report is due in December 2004. **Moulton** added that an advisory board will be appointed to assist, and the the TCEQ will be providing support. **Jackson** added that they will likely have to change the laws governing water rights. **Kramer** stated that the senate committee will be meeting the week of January 12th, 2004 to cover all water rights/management issues excluding environmental flows. The Study Commission was originally aiming to meet on environmental flows in January also, but Governor Dewhurst did not complete his appointment of members until December 2003, so their initial meeting will be delayed..
 - b. There were no updates made for Region C.
 - c. **Adams** stated that Region H will meet January 7th, 2004, in part to reaffirm demand and population figures. They will also elect officers for the new year, and discuss policies and water management strategies. **Callaway** noted that the minutes of these meetings are posted on the Region H portion of the TWDB website for anyone who is interested to review.

- d. **Callaway** reported that the recent TCEQ Water Rights Advisory Work Group meeting was the shortest WRAWG meeting she had attended. The WRAWG discussed revised water conservation guidelines, recent court decisions, and permit issues related to changes of ownership of water rights.
 - e. **Weeks** commented on the new contract for GBFIG. The Galveston Bay Estuary Program has underwritten facilitation for the group for another six meetings over the next one and a half years. With limited meetings left, the group must proceed with caution to get the most from the remaining meetings. The contract is with HARC. Jim Dobberstine will work with Weeks as a supporting consultant. As a related aside, **Weeks** noted that the GBFIG website will soon be hosted by HARC. Members will be advised when this move is complete.
5. **Paul Nelson** and **Adams** presented information regarding the recent water rights permit applications submitted by SJRA and the City of Houston. **Adams** noted that the regional plan showed SJRA to be 75,000 ac-ft short by 2050. The strategy to meet that shortage was to build Bedia Reservoir. The City of Houston and SJRA coordinated to look at options for making up the shortage in the upper San Jacinto basin, and subsequently agreed to pursue water rights where there is still unappropriated water in an effort to avoid building another reservoir that no one wants. **Nelson** said that the City had applied for an additional 32,500 ac-ft in Lake Houston that was available within its firm capacity. The City is also preparing bed-and-banks applications for return flows available in the lower reaches of Buffalo Bayou, Brays Bayou, Sims Bayou and White Oak Bayou. The Water Availability Modeling showed that there are 80,000 acre-feet of unappropriated rights in the San Jacinto. **Adams** stated that appropriating this water would not affect Galveston Bay, as it is intermittent and would not reach the Bay during dry periods. (The only time they release water from the reservoir is during storms/high flows). The reliability of the unappropriated volume is about 60%. This will still require cutbacks and conservation measures during dry periods. It was noted that the National Wildlife Federation has opposed these permit applications.

Callaway asked for an explanation of why this water at 60% reliability, would not reach the Bay. **Adams** responded that in periods of shortage, there would be more demand than availability, and the 80,000 acre-feet in question would only be available to meet demand 60% of the time. When everyone is using all that they are permitted to use, it would not reach the Bay as it would be caught in the reservoir. **Loeffler** commented that the estimate is out of the WAM, and does not include environmental flows. Some amendments will have special conditions; maintenance flows are not being considered in this estimate. **Adams** responded that environmental/maintenance flows are accomplished in part by return flows.

Jackson asked a question about passing floodwaters through for estuarine maintenance. He was of the understanding that flood runoff was what was used

to fill the reservoirs, and it seems that this unappropriated 80,000 acre-feet will simply be caught in the reservoir. He commented that maybe this volume should be passed through to maintain the estuary. **Adams** responded that everything below Lake Houston is tidally influenced. **Weeks** clarified **Jackson's** statement, indicating that even though those flows are considered intermittent, we have previously stressed getting those flows through to the estuary. **Adams** responded that the San Jacinto basin is split between the upper and lower basin. There is currently more water entering the estuary through Brays and Buffalo Bayous than ever before as a result of return flows. The region needs to plan for population growth in the near future. They expect and plan on return flows going into the Bay. There are currently more return flows entering the Bay than ever before.

Kramer commented that he had seen a slide that demonstrates that return flows are shifting from the Trinity to the San Jacinto, resulting in the San Jacinto return flows being greater and steadier than ever before. This is expected to continue due to the number and placement of wastewater treatment plants.

Woodrow commented that in the worst case scenario, the Lake level would fall by 80,000 acre-feet, and then when it rains, the Lake would have to refill before any water flows downstream. **Adams** affirmed that statement, and noted that the volume in question is quite small relative to the volume released during flood periods (e.g.: 360,000 cfs during the 1994 flood- the equivalent of Niagara Falls).

Callaway asked about return flow volume and placement. She noted that the City application indicates that they want to return the flows as far south as Brazoria. **Nelson** noted that this falls within the City of Houston (COH) service area. **Adams** also added that they believe it needs to be set up this way to serve the public. **Callaway** noted that this is only one of several applications. **Nelson** affirmed this comment, and provided some detail about the City's four permit applications:

- One application for 32.5 thousand acre-feet
- Another for 80 thousand acre-feet
- Also applying for unappropriated water downstream in Buffalo, Brays, White Oak, and Sims Bayous
- Applying for return flows from wastewater treatment plants downstream from Lake Houston (35 plants); much of this originates as groundwater, but all is coming from COH wastewater treatment.

Loeffler inquired to what volume they are applying for. **Nelson** responded that there is 500 thousand acre-feet available. Additionally, they would like to be upfront and discuss these applications with everyone who is interested. The COH believes that they are the ones that should be applying for these permits, so that if one is issued, it will benefit the population. **Jackson** questioned whether this might be a problem setting precedent upstream on the Trinity River. **Adams** responded that the Sabine River Authority is proposing to pump water north to serve the DFW metro area; return flows will flow down the Trinity.

Jackson stated that it appears to be a closed loop, with water reused over and over with none getting through; will this concept be included in the Region H supply plan? **Adams** responded in the affirmative.

Kramer inquired how the other applications fit into the COH plan. **Nelson** responded that there are only so many uses, and he is not sure if multiple reuse will affect the bayous. COH plans to start working with the TWDB to reuse water from the 69th Street treatment plant effluent for industrial purposes, then return the flow again. **Whitworth** asked where the water would be taken from Buffalo Bayou? **Nelson** said no diversion point had yet been identified. **Nelson** commented that the excess in the bayous will only be about 40% reliable. **Graml** added that no supply without storage will be 100% reliable, but rather it will depend on rainfall. **Nelson** stated that COH wanted to make the applications before anyone else gets it, then open it up to discussion. Additionally, if they use this for irrigation, then that is less groundwater used.

Kramer requested that the relationship between the regional and state water plan be identified. **Adams** responded that the planning group will have to be willing to make choices of one strategy over another; strategies may need to be adjusted. **Graml** added that new applications will be viewed as new strategies. **Kramer** asked how the shift in supply will affect this? **Adams** responded that that it's not going to reduce that much; 1.2 million acre-feet to 800 thousand acre-feet. There are still groundwater generated return flows. **Kramer** noted that these are all intermittent flows except for some return flows. Asked about the plans for return flows. **Adams** responded that they will use some return flows, but will not return them all. **Nelson** added that groundwater is estimated to make up 20% of the total return flows. Eventually, gallon for gallon, all surface water will end up in the Bay, but the City expects this application to be looked at carefully. The process will take care of the environmental flows as part of the permitting process. COH hopes that working with everyone as part of the process will demonstrate their interest in the Bay.

Loeffler stated that it appears that COH and SJRA do not believe these permits will have a significant impact on the Bay. If you look at other basins, the built in protections are through the major water rights permits - is this where we are headed with Galveston Bay? What is the overall impact of these permits? They are obviously altering flow somehow. **Adams** responded that during low flow, these will not have an impact because they would not be going to the Bay anyway. During high flow, there will be some delay to make up for 80,000 acre-feet. **Nelson** stated that if the state issued only "yes/no" type permits, there would be a problem. But, the commission will review the applications and modify to maintain inflows.

Parkhill asked about the schedule for instream flow studies, and commented that the numbers on the instream flows won't be available until 2010. **Loeffler** responded that the permit decisions would not wait until the numbers are

complete. Permits would be issued in a few months based on what is available, and may be modified later when better information is available. **Shead** commented that there appears to be an excess in the San Jacinto; what happens in the Trinity is the real question -- the result could be good. She noted that the applicants have a lot of confidence in the process and the state agencies; environmental advocates are not so sure this will work out as well. She said it is important for GBFIG to continue its work while developing the science. **Nelson** responded that this is why they are here today presenting; there is no intent to sneak these permits through. Also, on a positive note, COH passed an ordinance to contract 1600 acre-feet from the West Canal to Sheldon Lake Park. The Park will only have to pay for what they take. Woodrow noted that it had taken TPWD 12 months to work out the contract, and it took COH only 1 month. He also noted that if the City is in water crisis, the TPWD Park would comply with city water restrictions.

A 15 minute break was taken at this juncture

6. **Graml** provided an update of the analysis of impacts modeling. (See slides.) KBR took models developed for TCEQ and added several projects such as reservoirs and return flows from the regional plans. Resulting inflows were divided by basin. The model clearly shows movement/transfer of water from the Trinity to the San Jacinto through decreasing inflows from the Trinity, and increasing inflows from the San Jacinto. Also, when no return flows in the San Jacinto are modeled, there is clear impact to the overall inflow to the Bay. The model shows that a scenario with full diversions with return flows and Region C strategies included meets the targets well due to imports. He noted this does not yet account for location of inflows.

Adams asked why there is so much flow variation shown in the Trinity when rainfall is fairly consistent. **Browning** responded that rainfall is much more variable in the upper watershed (e.g.: Dallas). Also, commented that we tend to interpret more as better. However, meeting targets at a rate of 50% follows natural/normal trend more closely.

Graml commented on the frequency of meeting targets by basin. Under current conditions, the model shows the Trinity decreasing and the San Jacinto increasing. When modeled incorporating full diversions with management strategies, the trends are amplified. Acceptable spatial distribution still needs to be determined by this group. The targets used were established by the original Galveston Bay Inflows historical data.

Shead stated that we need to start thinking about water quality in addition to water quantity. We are not satisfied with the water quality coming down the San Jacinto right now.

7. **Loeffler** provided an update on the TWDB/TPWD reassessment of the Galveston Bay Freshwater Inflows study. She noted that it is very early to be

discussing this topic; however, she also noted that it makes sense to update a study based on new information and data (e.g.: Matagorda Bay study and salinity levels). She said that this is not a restudy of Galveston Bay, rather the same methodologies were employed as the 1994 study, accessing new data. This includes coastal fisheries data, circulation studies, etc. They are still working out which agency is responsible for which aspects of the study. She said that there are a number of pending water rights decisions and management strategies which may affect Galveston Bay for which the current inflows study will be used.

Matsumoto brought to the group's attention a stakeholder meeting regarding the study that is scheduled to be held in January or February 2004, and will be facilitated by the University of Texas Public Policy Dispute Resolution Center. All GBFIG members are invited to attend. **Moulton** added that no exact time or place has been set. **Matsumoto** stated that the purpose of the meeting is to get more input. **Moulton** added that they want to develop stakeholder input and determine future study needs. They will also compare this to other bay/estuary studies. This is the beginning of a long term process. It will include re-running the model with new data, but nothing is final yet- they are still waiting on the board to set up the process. **Callaway** asked why they are not simply using this stakeholder group, which was already carefully set up to meet TCEQ estuary advisory council requirements, and answers to Region H and GBEP? **Moulton** responded that they do not want to limit themselves to stakeholders from the Galveston Bay area, but prefer to include stakeholders statewide to include more perspectives (e.g.: Matagorda), as they are using the same methodology in all of the studies. This may allow them to deal with any system/methodology problems at one time. **Loeffler** added that this concept has not yet been agreed upon by all of the agencies, and that using this existing stakeholder group is a good point, as it makes use of that existing base of knowledge. **Shead** stated that because this is about Galveston Bay, and this appears on the surface to ignore GBFIG's 6 years of efforts, this group needs to formulate a plan to address this issue.

Matsumoto inquired whether there was consensus yet about the model and resulting numbers. There was discussion and some disagreement regarding whether consensus has been achieved, although **Bartos** did note that this group had set targets based on the Bay study. **Browning** did not agree that consensus had been reached, and pointed out that this group has been invited to participate in the tri-commission meeting, which is slightly larger in scope than this group looks at. **Kramer** echoed **Shead's** concern that this group had not been consulted. He also acknowledged that GBFIG is trying to determine management strategies, and the Austin group is not. **McFarlane** pointed out that he had noted a lack of correlation in the fisheries/productivity data. **Weeks** summarized that there is not consensus yet, but that is an expected part of the spiraling, adaptive management strategy that has been employed by the group. This group thinks that the tri-commission effort will simply duplicate this group's efforts.

Moulton responded to a question about whether it had been decided to update the study by stating that it has been decided, and that part of their goal is to determine how to conduct these tri-agency studies in the future. They want to look at the discrepancies in the Galveston Bay data as this bay study has been completed and has had enough time to have had some significant scrutiny.

Browning added that the new effort will look at the technical issues and discrepancies to determine how to resolve them. They will examine data sources, etc. They will not be looking at regional water management strategies, etc. Galveston Bay is the first effort at a tri-agency approach, and they want to be able to improve the technical base without excluding prior work.

Weeks noted that GBFIG did submit a consensus document to Region H, but that we were not in 100% agreement. Are we now willing to reassess and reevaluate? **Browning** responded that the document did allow for updates.

Weeks inquired where the group wanted to go from here. After some discussion, it was decided that Weeks and Callaway would draft a letter to Bill Mullican communicating GBFIG's strong interest in having all its members participate and in participating as a group, and GBFIG's strong preference that the meeting be conducted in the Galveston Bay area.

The meeting was adjourned.