

**Galveston Bay Freshwater Inflows Group  
25 October 2001 Meeting Summary**

**Participants Present:** John Bartos, Richard Browning, Jeff DallaRosa, Reed Eichelberger, Frank Fisher, Woody Frossard, Guy Jackson, Ken Kramer, Cindy Loeffler, Carl Masterson, Bob McFarlane, Bruce Moulton, Chris Paternostro, Linda Shead, Mary Ellen Whitworth, Pudge Willcox

**Support Team Present:** Glenda Callaway, Lisa Gonzalez, Anne Ray, Jeff Taylor, Pris Weeks

**Others Present:** Carlos Mendoza (USFWS), Fred Perrenot (Perrenot Group)

1. The Galveston Bay Freshwater Inflows Group (GBFIG) met at the City of Houston's E.B. Cape Center for Public Works Excellence, 4501 Leeland, Room 131, Houston, Texas 77023. Self-introductions were made.
2. The July 18, 2001 meeting summary was approved without further changes. Approval of the 29 August 2001 summary was deferred until the next meeting.
3. There were no additions to the agenda.
4. **Taylor** inquired about the status of the San Marcos River Foundation water right application. **Loeffler** stated the application's status had not changed since it was discussed at the last GBFIG meeting. The San Marcos River Foundation applied for a water right permit on the Guadalupe and San Antonio rivers for the amount of 1.3 million acre-feet. The application was declared administratively complete by the TNRCC in December 2000. Public comment on the permit included requests that the permit be denied and requests for a contested case hearing. Some preliminary hearings may be held Summer 2002.

**Chris Paternostro** of the Texas Water Development Board gave an update on the State Water Plan public meetings held in Region H. On October 23, 2001, two public meetings were held for Region H- one in Conroe, Texas, and one in Houston, Texas. Concerns voiced by attendees included a call for increased conservation in the Trinity River basin, a request that no more dams be constructed along the Trinity River, an inquiry about the implementation of block billing as a tool to encourage water conservation, and questions regarding the cost of desalinization versus reservoir construction.

**Callaway** added that some attendees requested a greater reliance on water conservation. The Galveston Bay Foundation asked for greater reliability and accountability regarding conservation measures. They also

asked for continued bay and estuary studies to refine the work that has been done. Attendance was low at the meetings. **Loeffler** added the official public hearing is to be held in Austin on November 1, 2001. The deadline for written comments is November 12, 2001.

**DallaRosa** provided an update on the recently held Galveston Bay Estuary Program's Bay Council meeting. Kerry Whelan of Reliant Energy has stepped down as Bay Council Chair and is succeeded by DeGraaf Adams of the Coastal Conservation Association. Adams had previously served as Vice-Chair. Theresa Battenfield with the City of Houston was elected to serve as the new Vice-Chair. The Council elected new members as well. Presentations on habitat restoration were given as well as a presentation on the TDH seafood safety study. The TDH press release should go out on October 25, 2001. **Masterson** added that the seafood consumption advisory for Clear Creek has been lifted while the advisory for the Houston Ship Channel has been extended to include additional chemical constituents. **Shead** added that more studies had been conducted on Clear Creek. The de-listing appears to be appropriate.

**Callaway** provided an update on the Coastal Impact Assistance Program. The Coastal Coordination Council (CCC) held its meeting on October 19, 2001. Public members who had previously supported the Coastal Trust Fund withdrew their support. Therefore, the available \$8 million will be run through a grant program. There had been some concern that small counties were not receiving a fair share of the money, therefore, 15% of the available money will be set aside for smaller projects.

**Moulton** is a member of the group that developed the Request for Proposals (RFP). There will be two stages of projects addressed by the Coastal Impact Assistance grant program:

- Stage 1 (85% of funds)-There will be no minimum or maximum amounts for which applicants can apply. However, large projects are preferred. Preferred projects will be for wetland restoration, preservation or enhancement projects, and water quality protection. The RFP will hopefully be approved by November 12, 2001.
- Stage 2 (15% of funds)- For smaller projects. The cap is now set at \$100,000 but may be reduced to \$50,000. The red tape associated with the application process will be reduced.

**Callaway** added the proposed projects must be completed within three years. **Jackson** asked that since the Coastal Impact Assistance funds come from payments made by the offshore oil industry, does there have to be a link between the coastal impact and the proposed project, or can any project be considered? **Shead** answered that the term *coastal impact* is broadly defined and includes many activities that are in some way related to oil and natural gas withdrawals. **Moulton** added there is a list of project

types recognized by the federal program as fundable. This will be included in the RFP. There is a list of types of projects that the CCC prefers. Stages 1 and 2 will not have matching requirements, but the CCC would like to see some local support.

A new appointment has been made to the TNRCC. Kathleen Hartnett White has been named as a new Commissioner. She is a West Texas rancher and TWDB board member.

5. **Weeks** asked the group to review Task IV of the GBFIG Work plan. She would like the group to have a general discussion on each of the proposed management strategies including the pros, cons, and feasibility of each strategy. The group will then rank each strategy with regard to efficacy and cost/benefit.

Weeks then led a discussion on the strategy- modification of reservoir operations. Linda Shead, John Bartos, and Reed Eichelberger submitted sample strategies.

The group brainstormed the following ideas for types of modifications to reservoir operations:

- a) New reservoir construction
- b) Return of flows to the basin of origin
- c) Systems operations
- d) Reallocation of flood storage
- e) Required pass throughs
- f) Institute the Water Master program
- g) Enforce water rights

### **Break**

A discussion on the efficacy and cost/benefits of the above reservoir modification strategies ensued.

- a) New reservoir construction:

*Cost/Benefit Discussion:*

**Jackson** asked how one would pay for environmental uses of water.

**Frossard** suggested two mechanisms by which to obtain water for environmental uses:

- Buy into a reservoir project up front and become a partner in the construction of the reservoir, or
- Contract to purchase an amount of water after the reservoir has been constructed (note that this is not the same as the purchase of a water right)

**Loeffler** stated that while pass throughs are required for new reservoirs, they are not required for existing reservoirs. The State of Texas would most likely not go back and purchase water.

**McFarlane** added that there is a flaw in that the current system does not account for the full cost of water. Costs are associated with collecting, storing and delivering water. A mechanism is needed whereby those that take water to collect, store, and deliver the water - pay for it. The water was initially free and going to the bay.

**Frossard** answered by saying that the TNRCC already associates costs to those that use the water.

**Weeks** added that McFarlane's point is the philosophy behind the Public Trust Doctrine and suggested that it be considered under the "Other" category under Task IV in the GBFIG work plan.

**Callaway** suggested that McFarlane's point not be discounted and that it be considered in a category by itself.

**Carlos Mendoza** asked, for a water right upstream- how does one ensure that the water is getting to the bay?

**Weeks** asked if this question should be considered under the enforcement of water rights discussion. It was suggested that this point would be addressed under the "Other" category of Task IV as "moving the diversionary point of a water right downstream".

*Efficacy Discussion:*

**Kramer** stated that any new reservoir would impede a certain amount of flow. All other things being equal, more water is not added to the system. This is not an efficacious way of providing additional water.

**Jackson** added that many reservoirs could be constructed along a waterway and the amount of water needed for environmental flow would still not be obtained.

**McFarlane** agreed by saying that there is probably not enough water in any reservoir to release down the Trinity River so that it could have an impact during a period of extended drought.

**Frossard** stated that it might, however, aid in the timing of the needed water. **Browning** added that storage is the only way to affect timing. It would take a very large reservoir to affect quantity.

**Shead** replied that the group had already stated that timing is a greater issue than is quantity.

**Kramer** replied, yes, but quantity is an issue.

**Jackson** added that the right quantity is needed at the right time.

**Kramer** stated that it is more efficacious to release water from existing reservoirs rather than build new reservoirs.

**Callaway** added that the two are not mutually exclusive.

**Jackson** stated that the worry lies in how flow modification will affect natural cycles. "The "humps" in water inflows are needed by the system.

**Loeffler** stated that the Bay and Estuary (B&E) targets are based on the premise that the bay goes through droughts. We don't want water use to make those droughts worse than they would naturally be.

**Callaway** stated that the bay studies were conducted using finfish species that can move. Oysters cannot move along a saltwater gradient.

**Loeffler** stated that TPWD considers the construction of new reservoirs as a last resort to supply water for people.

**Kramer** added that there is environmental opposition to building new reservoirs.

**Jackson** stated that the cost of building a new reservoir is phenomenal.

**Bartos** added that the discussion of new reservoirs came about because new reservoirs have been proposed and advocated. How would they affect inflow?

**Browning** stated that without storage for environmental flows, timing of environmental flows cannot be affected.

**Shead** suggested that the group be supplied with copies of the graphs on distribution needs of flows.

<b>Highlights from the discussion on the construction of new reservoirs:</b>	
<p><b>Efficacy:</b></p> <ul style="list-style-type: none"> <li>• Not the most efficacious solution; does not supply "new" water</li> <li>• Might aid in the timing of water</li> <li>• Storage is the only way to change or affect timing</li> <li>• A <u>big</u> reservoir would be needed</li> <li>• Quantity and timing are critical issues</li> </ul>	<p><b>Cost / Benefit:</b></p> <ul style="list-style-type: none"> <li>• Co-permit for a new reservoir</li> <li>• TPWD: New reservoir is a last resort</li> <li>• Opposition from environmental groups</li> <li>• High cost</li> </ul>

b) Returning flows to the basin of origin:

**Paternostro** stated that this method would put waters and their associated nutrients back into the basin of origin (in particular, returning flows from the Trinity River basin back to that basin) rather than discharging them into the San Jacinto River basin. This would most likely require pumping of water and would be expensive considering the amount that it would generate.

**Eichelberger** asked who would be responsible- the end user or the water supplier (the initial water transferer).

**Browning** added that Corpus Christi has a small pilot project.

**Callaway** believed that the idea would not work. Moving water is complicated and expensive. Would pipelines have to be placed under the Houston Ship Channel? How would power for pumping be supplied?

**Frossard** stated that if this concept were applied broadly, then it would have other implications. One third of the flow coming down the Trinity

River is originally from other basins. Under this concept, that water would have to be returned to those original basins. This option should be reworded to “Return Trinity River flows to the Trinity River basin”.

**Callaway** added that some of the Trinity River flows could be returned above the Houston Ship Channel (pipelines would not need to be placed under the ship channel).

**McFarlane** suggested that since water is taken from the Trinity basin and returned to the San Jacinto basin, couldn't water alternately be transferred from North Harris County to the Trinity River basin?

**Callaway** replied that there is much water demand in North Harris County. The City of Houston may provide that water. In that case it would be a closed loop.

**Shead** answered that it could not be too difficult or infeasible. Reliant Energy does just that in Cedar Bayou. She was not sure of the amount that they transfer from the cooling ponds to the bay. Water transfer can be done on some scale and already is being done.

**Callaway** stated that the group will not find just one solution. Some of the ideas need to be kept on the table.

**Paternostro** suggested that the Corpus Christi pilot project be monitored to see how it works.

<b>Highlights from the discussion on the transfer of <u>San Jacinto</u> River water to the basin of origin:</b>	
<p>Efficacy:</p> <ul style="list-style-type: none"> <li>The amount that would be supplied by this is questionable</li> </ul>	<p>Cost / Benefit:</p> <ul style="list-style-type: none"> <li>Must be able to pump the water back to the delta</li> <li>Very expensive</li> <li>Must be careful with wording so that “returning water to the basin of origin” is not applied so broadly that the Trinity basin is hurt</li> </ul>

It was suggested that future information needs should include:

- A determination of the amount of return flows
- The amount of water and the salinity of the water moved by Reliant Energy

c) Systems Operations:

This was explained as two or more reservoirs operating in conjunction with one another.

**Loeffler** stated that water is usually stored in the geographically upper most reservoir, or in a deeper reservoir with small surface area to lessen evaporation. When reservoirs are operated together, systems operation can actually increase the amount of water available. This extra water

could be used for environmental uses and could offset the need for new water development projects, or reduce the size of a new project.

**Callaway** stated that the GBFIG needs information on whether studies have been done on the systems operations of Lakes Conroe, Livingston, and Houston.

**Frossard** stated that these studies have been done and may not be very effective.

**Callaway** asked if studies had been done on both water supply and flood control reservoirs.

**Frossard** replied that no studies had been done on flood control reservoirs.

**Browning** added that there are three reasons for utilizing systems operations: 1) can increase yield, 2) have the option to not use a water source during a time of emergency and 3) can minimize energy and operating costs. The system gives flexibility.

**Weeks** asked if there were any new costs associated with switching to systems operations.

**Frossard** stated that if one looks at it basin-wide, the ability to make the switch may be there, but federal projects must also be incorporated into the system. There is a policy issue.

**Browning** and **Frossard** both stated that there would be additional costs associated with infrastructure and energy needs. Existing pipelines are a limiting factor even if the water is available.

**Jackson** stated that one must consider not only how the water is caught and held, but also how it is released.

**Frossard** stated that federal reservoirs are built for the purpose of storing flood flows. They have the right of impoundment and can hold the water for a longer period. Operation scenarios differ between federal and non-federal reservoirs. Non-federal reservoirs cannot hold water for as long a period and could not hold water for environmental flows even if they wanted to.

<b>Highlights from the discussion on systems operations:</b>	
<p>Efficacy:</p> <ul style="list-style-type: none"><li>• May not supply enough water</li><li>• Could yield 10% or more additional water</li></ul>	<p>Cost / Benefit:</p> <ul style="list-style-type: none"><li>• Could increase the amount of water available</li><li>• Can reduce energy use</li><li>• Additional infrastructure and energy costs</li><li>• Policies of federal reservoirs</li></ul>

d) Reallocation of Flood Storage:

**Callaway** stated that it is not very relevant for this problem. There are no flood storage projects in this area.

e) Pass through operations:

**Weeks** asked if this option would “give us water”.

**Callaway** suggested that this be modeled to see its effectiveness and the associated impacts.

**Moulton** stated that existing reservoirs do not have this requirement.

Hopes may be placed on something that does not exist.

**Shead** stated that even so, this option should be looked at.

**Jackson** stated this can be done- operations can be changed.

**Browning** stated that if flows are passed through during critical periods (drought), then it would result in the reduction of water supply. Those that are responsible for maintaining water supplies do not want to see those supplies reduced.

**Loeffler** added that environmental planning criteria are developed for planning purposes. These criteria are “fine tuned” for a particular project.

**Browning** stated that the big issue is: will the existing supply of water be reduced?

**Shead** stated that this option cannot be evaluated without having the facts. More facts are needed before the group can judge an option as being impossible.

**Weeks** reminded the group that no ideas are being eliminated from the discussion at this point. The group will rank the options.

**Frossard** added that timing must also be looked at in addition to pass through operations.

**Browning** stated that he might be able to bring supply information to the next meeting if it is held after mid November.

<b>Highlights from the discussion on pass through operations:</b>	
Efficacy: <ul style="list-style-type: none"><li>• Timing is a factor</li></ul>	Cost / Benefit: <ul style="list-style-type: none"><li>• Could decrease available water supply</li></ul>

Due to time constraints, discussion of the efficacy and cost/benefits of the remaining points will be resumed at our next meeting.

f) Institute the Water Master program

g) Enforce water rights

6. **Weeks** then queried the group on the date for the next meeting. Three possible dates were decided: *1<sup>st</sup> choice*: November 28, 2001; *2<sup>nd</sup> choice*: December 4, 2001; *3<sup>rd</sup> choice*: December 11, 2001. The date of the next meeting depends upon room availability at the EB Cape Center.

7. Meeting adjourned.