



Buffalo Bayou  
& Lower White Oak Bayou  
Federal Flood Damage  
Reduction and Ecosystem  
Restoration Study

## **INITIAL STAKEHOLDER GROUP (ISG) MEETING NOTES**

Thursday, July 24, 2008

HCFCFCD Offices, 9900 Northwest Freeway, RM 100

### **Introductions and Welcome**

Jennifer Dyke welcomed the group. Dyke introduced Harris County Flood Control District (HCFCFCD) and TCB meeting attendees and new members of the stakeholder group. An overview of the agenda was presented and TCB's Roy Knowles was introduced to discuss an overview of the Buffalo Bayou pilot project.

### **Buffalo Bayou Conceptual Plan and Pilot Project**

This pilot project is within the federal study area and it is managed by HCFCFCD Project Manager Greg Dicioccio from the Infrastructure Department. TCB is the lead consultant on the project, and TCB's Roy Knowles and Alem Gebriel are working on the study.

The study area is from Sabine Street to Shepherd Drive.

There are two phases to the project: (I) assess and collect data about sediment accumulation along the banks of the study area to determine the transport occurring; (II) develop a conceptual plan and pilot project site that would restore conveyance capacity in an environmentally-friendly and aesthetically-pleasing way.

Data collection and modeling is ongoing for the first phase of the project. For the second phase, the team studied aerial photography and identified six potential pilot sites. Field investigations were conducted and revealed a seventh potential pilot site. The project area includes open, herbaceous areas as well as heavily vegetated areas. One of the factors considered was publicly accessible areas.

The goals for establishing vegetation enhancements on the pilot site include creating natural habitat using native species that would be a visual amenity that could provide educational benefits for the community. The pilot site may be referenced as a model for future vegetation improvements along the bayou.

Care was taken to consider the efforts of others with planned improvements along the bayou (i.e., Buffalo Bayou Partnership (BBP) and the City of Houston). The study team considered elements in the BBP's Master Plan and the Bayou Preservation Association's Master Plan.

It was mentioned that the Tax Increment Reinvestment Zone No. 5 (Memorial Heights TIRZ) is currently designing and constructing a pedestrian bridge over Memorial Drive and Buffalo Bayou, immediately east of Studemont. The project footprint crosses two of

the potential pilot sites (A & G). The TIRZ requested that the Pilot Project coordinate with them on their plans.

Criteria were developed to evaluate the seven sites, including accessibility, appropriate length along the bayou, avoidance of proposed improvements and potential sediment removal sites, presence of silt accumulation or erosion, visibility, and parking.

The three sites with the fewest constraints included Site A – along the south bank upstream of Sabine St.; Site C – along the north bank east of Montrose; and Site G – along the south bank straddling Montrose. The project team determined Site A to be the best opportunity for a pilot project. However, the team expanded the pilot site to include not only the southern bank but also the northern bank.

The next steps for the pilot site are to conduct a topographic survey of Site A and begin design of the site and selection of appropriate vegetation to create a planting plan.

Q: If the pilot site goes well, will you move the concept to other stretches of the bayou? Concern that COH Public Works Department has CIP projects with schematics that cross the footprint of Sites C and G and there are multiple initiatives in 2009 and 2010.

A: The team is looking for different sites to improve flood conveyance and will use Site A initially. Coordination efforts are underway to be sure there are no conflicts, and the project team will follow up with COH outside of this meeting.

Q: This is a major undertaking isn't it?

A: There is quite a bit of accumulated sediment on the bank along the waters edge. This isn't a major rehabilitation, but the pilot project will be significant.

Q: Aren't there trees in this area?

A: Yes, there are some black willow trees and other trees growing along the channel bank. They will have to be removed. The team is being careful to consider existing trees. The intent is to stay out of the water in this pilot project and not to discharge below the ordinary high water mark of the bayou. Since the pilot project will not be in the water, a Corps of Engineers permit will not be required.

Q: Are you coordinating with Buffalo Bayou Partnership? This pilot project seems to impact their work.

A: Yes, we are coordinating with Scott Barnes and Anne Olson. We have the Tapley plans and our intent is not to disturb that area, if possible. Scott Barnes commented that this would not impact BBP plans.

Q: When will the design be done?

A: Fall 2008



## History of the Study Area

HCFCFCD's historian, Gary Garrett, presented a detailed history of early flooding in the Houston area, and tailored it to areas pertaining to this federal study area.

Highlights included:

- 1912 graphic of the 16 square mile footprint of Houston
- Historical brief of the 1836 coastal area of Galveston, Houston and Harrisburg and real estate promotions to sell the Houston area as a shipping port on par with Galveston.
- In 1879, the worst nineteenth-century flood in the city's history occurred.
- The great hurricane of 1900 devastated Galveston and spurred federal action proposed by Thomas Ball to build the Houston Ship Channel. Houston and Harris County also suffered wind and flood damage in 1900, but no measures were taken to reduce future flood damage.
- The city population in 1900 was 44,633 and in 1930 was at 292,352.
- Numerous floods the first three decades of the 1900s, culminating in the great flood of 1929, still did not inspire funding efforts to minimize flood damage.
- A dramatic flood in 1935 affected two-thirds of the city, shut down the water plant, and shut down the ship channel. The National Guard patrolled downtown Houston in boats to rescue stranded persons and to prevent looting.
- The Flood Control Act of 1936 authorized federal flood damage reduction assistance through the Corps of Engineers, and the Corps required the Houston/Harris County area be represented by a single local agency. This led to the establishment of HCFCFCD in 1937.
- In 1940, plans were approved that included a White Oak Bayou Reservoir, Addicks Reservoir, Barker Reservoir, rectification of Buffalo Bayou, a North Canal to the San Jacinto River and a South Canal to Galveston Bay. The implemented plan included Addicks and Barker Reservoirs and rectification of 6.2 miles of Buffalo Bayou.
- World War II and population growth forced cancellation of the other elements of the 1940 plan. In 1954 new plans were approved calling for rectification work on Brays, White Oak, and Buffalo Bayous. Channel improvements for 25.4 miles of Brays and 10.7 miles of White Oak were completed in 1971 and 1975. Environmental concerns led to cancellation of the additional channel work on Buffalo.
- In 1979, there were seven separate floods in Houston that caused more than \$800 million in property damage, accounting for 25% of the annual economic damages caused by flooding nationwide. This led to the 1980 Stormwater Management Policy authorizing HCFCFCD to begin building "stormwater detention and other water management facilities to supplement the open channel system," and this launched the modern flood damage reduction programs used by HCFCFCD today.

Jennifer Dyke advised the group that the content and several images from Gary's presentation will be added to the study web site.



## Study Status

### Public Meeting

Other updates on the web site will include public meeting court reporter transcripts, commonly asked questions with answers, etc. For reference, the public meeting comments are in binders at the back of the room for review.

Some of the public meeting comments included:

- general support of flood damage reduction and ecosystem restoration projects
- thoughts about development increasing flooding
- questions about project location
- concerns about erosion
- questions about environmental impact
- concerns about channel maintenance
- general support of recreational amenities

Stakeholder group meeting agendas and notes will be added to the web site.

\*\* Will add to the next meeting agenda a presentation on the study of the reservoir release rates.

Dyke reviewed with the group the next steps of the study and asked for input on the timing for the next public meeting. Next steps include:

- Component identification – screening components for technical feasibility
- Identifying anchor components (strongest scoring components)
- Feasibility Scoping Meeting (FSM) with the Corps of Engineers. (study milestone)
- Building alternatives
- Developing plans: potentially an NED, NER, Combined NED/NER, LPP
- Alternative Formulation Briefing (AFB) with the Corps. (study milestone)
- NEPA public comment period

Stakeholder Comment: Need more information to offer to the public. Not enough information offered at the last meetings, specifically about economic loss and damages.

Wayne Crull addressed the concern about economic study results. At this time, the study has collected baseline/without project conditions. Discussion with the stakeholders revealed that some stakeholders still had expectations that more economic data (like employment trends or utilization of vacant lands) was to be developed. As discussed by Wayne, the actual data collected is specific for the economic analysis required in a federal flood damage reduction study and generally does not cover estimations of future growth or development trends. The length of time and the cost to complete the without project economics is related to the amount of data



required and the related work efforts. As discussed in the public meeting (slides are on the study website), the collected data reveals the highest expected annual damages are located around downtown. The next highest damage areas are along White Oak Bayou and west of Loop 610 along Buffalo Bayou. During the next study phase, components, along with their benefits and costs, will be calculated. This will show where a potential flood damage reduction project may be more beneficial.

Comments from study members indicated a preference to conduct a public meeting after alternatives are developed. The study members want to be involved and presented with information leading up to this public meeting, and Dyke reassured them the stakeholder meetings and presentation of information would continue. Specifically, the stakeholders would be involved in the identification of components.

Members indicated a preference with an open house and presentation format. One member suggested producing information on CD, so the information can be shared with their organizations, etc.

#### Without Project Conditions Report

The Corps has reviewed the draft report. The HCFCD's Engineering Review Board (ERB) has also reviewed it. The study team is working to address comments from both. Some of the comments: include floodplain maps in the report; document the types of environmental models we are planning to use; and include the in-line stormwater detention basin in Terry Hershey Park in the study's H&H models.

In regards to study schedule, HCFCD anticipates it will take two to three years to identify a plan. Gaining federal approval and securing federal funding will take longer. HCFCD anticipates beginning component identification and evaluation in 4Q 2008.

The study team is planning to place the Without Project Conditions Report on the study website after it is revised.

#### Federal Funding

Wayne Crull presented the status of several of the existing HCFCD led federal studies.

The White Oak Bayou study has identified a plan and is moving towards an Alternative Formulation Briefing (AFB) in the next 6 months.

The Hunting Bayou study has identified a plan and environmental data collection is currently occurring. A technical review is scheduled in 2009, and the AFB is scheduled for early 2010.

The Halls Bayou study team has completed their Without Project Conditions Report and it is currently under review by the Corps of Engineers. They have not conducted their public scoping meeting yet.



The status of federal funding on two of the federal studies was discussed.

The anticipated reimbursement breaks down for the two federal projects under construction is as follows:

	<b>Requested 2009</b>	<b>Expected 2009</b>
Brays	\$11.0 M	\$5.4 M
Sims	\$24.5 M	\$21.5 M

Although HCFCD is unsure of the amounts of federal reimbursement for the Buffalo and Halls studies, they are planning to continue with these federal studies as a local effort, as long as local funding is approved.

#### Study Group Name

Dyke addressed the group to advise them of the intention to change to the study group name from the Initial Stakeholder Group to the Study Stakeholder Group since the study is in its third year. The current members will remain, and some new members may be added. The in-person meetings and content of the meetings would be unchanged.

It was mentioned that at the next meeting, if there are new members, nametags would be helpful.

In conclusion, Dyke recognized a new study member who was not introduced at the beginning of the meeting, Robert Rayburn with the Energy Corridor District.

It was mentioned that the Corps has currently updated their master plan for Addicks and Barker Reservoirs. They are currently accepting comments on the draft master plan and draft environmental assessment. The study website will be linked to these documents on the Corps website.

#### **Next Meeting**

To be determined – 4Q 2008

