

**Buffalo Bayou & Lower White Oak Bayou
Federal Flood Damage Reduction and Ecosystem Restoration Study
INITIAL STAKEHOLDER GROUP MEETING**

October 12, 2006

Harris County Flood Control District, 9900 Northwest Freeway

Introductions and Welcome

Wayne Crull, study manager, welcomed the members of the Buffalo Bayou & Lower White Oak Bayou Federal Flood Damage Reduction and Ecosystem Restoration Study Initial Stakeholder Group (ISG) meeting.

Information Topic – Flood Damage Reduction and Ecosystem Restoration

Patty Matthews presented the information topic “Buffalo Bayou and Lower White Oak Bayou Federal Flood Damage Reduction and Ecosystem Restoration Study.”

Matthews provided presentation slides for the ISG. In addition, exhibits showing aerials of the study area from Barkers Reservoir to the Ship Channel dated 1944 and 2004 were displayed in the room.

The focus of the USACE’s ecosystem restoration is on ecological resources. The “significance” should be national or regional. Currently funded NER projects include the South Florida Everglades, Lower Snake River Fish and Wildlife Compensation, and the Houston-Galveston Navigation Channels. On the latter project, the Port of Houston is the local sponsor. It was noted that many smaller projects have not been funded.

For the “Without Project Conditions” investigations, the team is looking at the study area or the watersheds of Lower White Oak and Buffalo Bayous. The study focus is on the main stem and not the tributaries.

The existing conditions being investigated include **physical, biological** and **socioeconomic**. The team utilizes a number of environmental data sources.

Physical investigations include water and air quality, soils and erosion and infrastructure.

⇒ Q: Does this include solids and sediments? Yes.

The team videotaped areas of Buffalo Bayou between Beltway 8 and IH-610.

⇒ Is the team looking at ways to improve operation policy of the dams [Addicks and Barkers]? Yes, we are looking for opportunities to relating to the operational policy of the dams.

Infrastructure includes documenting bridges and utilities.

Biological investigations include vegetation, wildlife, wetlands and threatened and endangered species. The team documented a thin fringe of pine-hardwood dominated riparian forest; a few large forested tracts; and almost no natural open areas, or grasslands. Numerous wildlife species previously documented were seen during field investigations. Protected species for which the bayou may have habitat are those included on state and federal protection lists and would be coordinated with resource agencies. State-listed threatened or endangered species that might be present include: alligator snapping turtle and protected freshwater mussels.

Wetland and other features investigated included remnant naturalized sloughs and oxbows. Previously documented wetlands were reconfirmed and were typically small (under two acres).

Socioeconomic investigations include population/demographics, economics, land use, hazardous waste, cultural resources (historic/archeological). Land use includes primarily developed areas, park lands and residential. Janet Waggoner is conducting the research for the study.

Overall, the “Without Project Conditions” analyses are important because the environmental constraints can help guide the development of alternatives, and they also provide the baseline for comparing impacts of alternative solutions, mitigation requirements and costs.

Resource agencies and other regulatory agencies have been asked for comment on the scope of the work. Public outreach will begin in this phase of the study – likely early 2007.

The preliminary planning for ecosystem restoration includes defining significant resources. Three general sources being identified include institutional (federal/state protected lists), technical (university, scientific studies) and public (general public advocacy, such as the spotted owl).

TCB’s Carl Sepulveda gave an overview of the preliminary ecosystem restoration planning:

The preliminary planning to identify the initial candidate list includes a four step-process.

- 1) Bayou-specific resources: what identified resources have been or could be found in our bayous?
- 2) Area resources: what identified resources have been found in the area or bayous that could be mimicked?
- 3) Macro-region resources: what unique ecosystems or regions in the area could be applied to our bayous?
- 4) Historical resources: what used to be in the area that could be restored?

⇒ Q: Has the team reviewed the UH-sponsored study? Not at this time.

⇒ Q: You mentioned that the tributaries are not being studied, but some are necessary for species to breed and migrate to the main stem. However, evaluation of tributaries is not included in the federal study. It is possible that the study area may be adjusted if a resource agency has a particular interest that this requires.

The next steps in the environmental study include continuing with the “Without Project” phase, defining the problems and opportunities in relation to this study, and formulating and evaluating the components and alternative plans.

Study Status

Wayne Crull gave the group an overall progress report on the study.

- Economics is 75% complete
- Engineering is 65% complete
- Environmental is 50% complete

A Study Status document dated October 12, 2006, was provided for study members to include in their notes. The text is reflected below.

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Engineering

The engineering investigations in this phase of study are approximately 75% complete. The engineering investigations include the hydrological and hydraulics (H&H) studies, the initial collection of design criteria for flood control and ecosystem restoration components, and the compilation of data on existing structures and other non-structural items that would potentially be impacted by such components.

Since July, the H&H work effort included addressing ITR comments and updating the report and the model, and producing water surface profiles for the eight frequencies. This data is used in determining economic damages in the HEC-FDA model. In the next three months, the work effort will focus on performing risk and uncertainty analyses.

Economics

The economics investigations in this phase of study are approximately 65 percent complete. The economics investigations establish baseline economic information to use throughout all study phases, to evaluate the base year and future without-project economic damages from flooding. Currently, the study team is evaluating floodplain characteristics – structure inventory, structure elevations, and value of floodplain property – for approximately 14,000 properties potentially at risk from a 500-year event.

Since July, the economics study area was finalized based on the H&H modeling; damages or benefits are being evaluated. The analysis of the finished floor elevations on properties within the study area was completed. Appraised property values were compared to the Harris County Appraisal District values. Overall, no structure inventory values were adjusted pertaining to residential properties; however, an upward 5% adjustment was applied to the commercial improvement values. A revised depth-damage curve for the downtown high-rise structures was developed and is currently being discussed with the USACE. The downtown tunnel system is also being evaluated, and the economic valuation should be completed within the next few

months. In the following months, the work effort will consist of reviewing the HEC-FDA model, continuing discussions with the USACE regarding the downtown and tunnel depth-damage methodology and risk and uncertainty analysis.

Environmental

The environmental investigations in this phase of study are approximately 50 percent complete. The environmental investigations during this phase of the study document the past, present, and future environmental, social and economic without project conditions in the study area.

During the past 3 months, the environmental investigations focused primarily on ecosystem restoration planning. A memorandum detailing the analysis, with supporting data, was developed, along with habitat mapping. This information will be shared with resource agencies as HCFCD discusses potential significant resources and ecosystem restoration, in accordance with USACE's regulations and in consideration of flood damage reduction planning.

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In addition to the Study Status overview, Crull advised the ISG that the internal study team would be prepared to discuss the study models, status of ecosystem restoration, and plans for a public meeting at the January 2007 meeting. He also clarified that the study team has not started formal component identification. This would take place in the next six to nine months.

In addition, the study team would be prepared to discuss the goals and objectives of the study.

Communications

Susan Elmore advised the ISG that the Long Range Public Engagement Plan is being finalized. A few highlights of the Plan include:

- The communications goals and objectives will complement the Study's overall goals and objectives.
- The ISG will serve as the primary, most engaged, audience and the study team would be talking with or reviewing materials with the ISG before they are discussed externally to other organizations.
- The District is planning to host a public meeting in the first quarter of 2007. This is an informational meeting, requesting public input on existing conditions and problems, potential solutions or opportunities. More than one meeting may be held due to the geographic area.

Information about the Study will be available on the District's web page in the first quarter of 2007, and closer to the time of the announcement of the public meeting.

At the next ISG meeting, the Communications agenda would include a more definitive execution strategy through the end of the Data Collection phase of the Study.

The ISG expressed interest in receiving an updated “brief” on the study and the status this quarter.

Next Meeting

The next proposed group meeting date is Thursday, January 11, 2007, at 2 p.m. at HCFCD.