



www.whiteoakbayou.org

15 February 2018

Mr. Quincy Allen, P.E.
District Engineer
Texas Department of Transportation
Houston District Office
7600 Washington Avenue
Houston, TX 77007

Email: HOU-piowebmail@txdot.gov

RE: North Houston Highway Improvement Project – I-45 Beltway 8 to US 59 –
Proposed Mitigation Measures for Lower White Oak Bayou.

Dear Mr. Allen:

The White Oak Bayou Association (WOBA) appreciates this opportunity to provide additional comments on the North Houston Highway Improvement Project and propose several ways by which TxDOT could mitigate some of the adverse environmental impacts resulting from the project. These considerations are based on a recent study of potential channel restoration opportunities on White Oak Bayou by the Harris County Flood Control District (HCFCD).

WOBA is a non-profit advocacy organization whose mission is to promote greater public awareness, appreciation, and enjoyment of the White Oak Bayou (herein "the Bayou."), its tributaries and environs by advocating for the preservation, restoration, and maintenance of wildlife habitats in and adjacent to the channel, while promoting compatible educational and recreational opportunities within the area. In a letter dated 9 June 2017, we expressed our concerns regarding the potential for the I-45 project to exacerbate flooding, further disrupt surface water hydrology and shallow groundwater interaction, cause further deterioration of water quality and wildlife habitat, and create potential barriers to pedestrian and wildlife mobility. Those concerns remain.

One particular concern is that, as currently designed, the I-45 project will have adverse impacts on one of the few remaining open spaces along the Bayou in the inner city providing significant habitat for no fewer than 143 species of birds (as documented by WOBA's Wildlife Habitat Committee Chair), and other wildlife. (Please see: http://www.whiteoakbayou.org/uploads/3/4/9/1/34911613/uhd_letter_and_attachments.pdf). Another is that the project could impede future efforts to restore the channel as envisioned in the HCFCD study.



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While we recognize the necessity for transit improvements and the inevitability of “collateral damage” we also firmly believe that TxDOT has an obligation, to the extent feasible, to minimize such impacts and when they cannot be avoided, to perform mitigation as a means of compensating for environmental degradation. Our previous letter recommended general mitigation efforts that could be taken to reduce or off-set the negative impacts of the I-45 project. This letter provides additional, more specific recommendations for mitigation in light of the study completed by HCFCD in October 2017.

The *Lower White Oak Bayou Restoration Study*, prepared for HCFCD by Freese and Nichols, Inc., explores alternatives for the removal of the concrete channel lining and for “creating a more natural, stable channel” with adjacent enhancements in the form of wetlands, detention and green-space, while reducing flood risk in the reach of the Bayou immediately upstream of its confluence with Buffalo Bayou. Additional stakeholders participating on the study team were the Memorial Heights Redevelopment Authority (MHRA, aka TIRZ 5) and the City of Houston. For your convenience, I am providing a hard copy of the study report with this letter. The study can also be accessed (until the end of March) via the following link:

<https://hcfcd.box.com/s/mol0gflgma7pwcsa1as9njg9fbo81vws> .

As documented in the study and elsewhere, an approximate 10-mile reach of the White Oak Bayou channel (from Hogan Street near downtown to Cole Creek near West Tidwell Drive) was straightened and lined with concrete as a flood mitigation measure in the 1960s. The White Oak Bayou Association, among other organizations, has for years been exploring the possibilities and advocating for removal of the concrete and restoration of the channel to a more natural state that would enhance water quality, ecological health and recreational value, while not increasing flood risk. After more than 50 years, the concrete lining is at or near the end of its design service life, necessitating costly repair and replacement.

But there is an alternative. Restoring the channel would, among other benefits, eliminate the necessity for the costly replacement of the concrete liner and on-going and future maintenance. Although there is not as yet a specific project on the books, the HCFCD study is an essential and significant first step and we are working to move the process forward.

The HCFCD study identifies three potentially feasible alternatives for the furthest downstream segment of the concrete-lined channel. All three alternatives require a larger channel cross-sectional area to prevent an increase in the base flood elevation. Thus, all three alternatives require access to, and land surface modification in the adjacent TxDOT I-10 corridor, including the excavation and removal of significant



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volumes of soil. Therefore, TxDOT's cooperation and coordination with HCFCD is essential.

We are very concerned that the proposed I-45 expansion project could have impacts that render a future channel restoration project infeasible. Below are our recommendations and requests for your agreement to consider design modifications and to perform mitigation for future impacts to White Oak and Little White Oak Bayous that will result from the project as well as mitigation for past impacts to both streams which have been significant.

- TxDOT engineers should first review the HCFCD report in detail and begin a dialogue with HCFCD engineers to evaluate the specifics of how the I-45 project, as designed, will adversely affect the Bayou and potentially impact future channel restoration efforts.
- TxDOT should evaluate how its design could be modified, and then revise it to minimize adverse impacts and potential impediments to channel restoration to the maximum extent feasible.
- Specifically, the designs for any new bridges crossing the Bayou should maximize the space between, and optimize the placement of support pillars to enable future channel expansion.
- TxDOT should formally commit to allowing access to its right-of-way and modification of the land surface, including removal of the necessary volumes of soil to enable the project.
- Transportation of the excavated soil is a significant portion of the projected cost for each alternative. Therefore, TxDOT should agree, to the maximum extent feasible, to utilize (or incentivize its contractors to utilize) the excavated soil (as well as beneficially reuse concrete rubble from the removed channel liner) in its future construction projects. This should include, if possible, transportation of the soil from the point of origin to the point of use.
- TxDOT could also offer the offer the property near the Bayou identified in the study as the "TxDOT tract" to the City and HCFCD for detention and park space.
- To the extent that additional mitigation by TxDOT is needed to off-set environmental impacts to White Oak and Little White Oak Bayous associated with this project and or any other past or future project in the White Oak watershed, TxDOT should agree to provide funding to assist with the implementation of whichever channel restoration alternative is selected.



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Implementation of any of the three alternatives outlined in the HCFCD study will be an essential first step in what will be a decades-long effort to eventually restore the Bayou to a state of hydrogeologic dynamic equilibrium and ecological health, enhancing the aquatic and riparian habitats, water quality and the esthetic and recreational value of this resource. With this project, TxDOT has an excellent opportunity to play a key role in improving the environment of one of Houston's major bayous for generations to come. We look forward to TxDOT's commitment to participate in this necessary process.

Again, we appreciate this opportunity to provide our comments and recommendations. Should you have any questions regarding our concerns or suggestions, please feel free to call me at 713-775-7330 or email me at rslee@gsi-net.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert S. Lee".

Robert S. Lee, P.G.
Vice President
White Oak Bayou Association

w/ enclosure

Cc: Matt Zeve, Chief Operations Officer, Harris County Flood Control District
Ann Lents, Chair, Memorial Heights Redevelopment Authority
Jamila Johnson, Managing Engr., Floodplain Management Ofc., City of Houston
Karla Cisneros, Member, Houston City Council, District H
Rodney Ellis, Commissioner, Harris County Precinct One
Jessica Farrar, Member, Texas House of Representatives, 148th District
Michael Skelly, Make I-45 Better Coalition
Robert Rayburn, President, Bayou Preservation Association