## MINUTES OF SOUTHEAST LOUISIANA FLOOD PROTECTION AUTHORITY-EAST COASTAL ADVISORY COMMITTEE MEETING HELD ON NOVEMBER 7, 2012

PRESENT: G. Paul Kemp, Chair John Lopez, Committee Member Albert Gaude, Committee Member Carlton Dufrechou, Committee Member (participated via telephone) Rick Luettich, Committee Member (participated via telephone)

The Coastal Advisory Committee of the Southeast Louisiana Flood Protection Authority-East (SLFPA-E or Authority) met on November 7, 2012, in the Fourth Floor Conference Room (Room 438), UNO Technology Park, CERM Building, 2045 Lakeshore Drive, New Orleans, Louisiana. Dr. Kemp called the meeting to order at 2:00 p.m.

## **Opening Comments:** None.

Adoption of Agenda: The agenda was approved.

**<u>Approval of Minutes</u>**: The approval of the minutes of the September 20, 2012, Coastal Advisory Committee meeting was deferred.

Public Comments: None.

#### New Business:

# A. Discussion of July 2012 version of the New Orleans East Land Bridge Study by Ben C. Gerwick, Inc.

Dale E. Berner, PhD, PE, President of Ben C Gerwick, Inc. (Gerwick), and Jean O. Toilliez, PhD, PE, with Gerwick participated in the discussion via telephone.

Dr. Kemp commented on the timeliness of the study due to the recent experience with Hurricane Isaac. The Committee's input is being sought in order to finalize the report. The Committee proceeded to review the July, 2012, draft of the New Orleans East Land Bridge Study. The need for editing to make the report more readable was noted.

Dr. Luettich quoted a statement contained in the Executive Summary that he commented seemed dubious: "In the 1930's there was sufficient coastal wetlands in the State of Louisiana to provide protection to the Greater New Orleans Area from the storm surge associated with a hurricane with 500-year return period." He asked the basis for this statement. Mr. Berner responded that the statement was included in a published paper and that he would look up the reference. Dr. Kemp suggested that the words "some protection" be used in the statement.

Dr. Lopez summarized for evaluation purposes three of the bullets listed under the scope of work in the January, 2011, task order for the study: 1) conduct a feasibility level study of the area to determine the best locations to construct shoreline/foreshore protection features to protect the land bridge from wave overtopping or erosion, 2) prioritize alternative coastal restoration plans based on benefits to be derived and in conformance with the State Master Plan, and 3) complete preliminary designs with cost estimates for selected projects.

Mr. Toilliez advised that more attention was paid to the 2007 State Master Plan than the 2012 Master Plan, since the 2012 Plan came about very late in the project. Dr. Lopez pointed out that the barrier plan was not included in the 2007 State Master Plan. Robert Turner, SLFPA-E Regional Director, explained that the Authority's emphasis was to add to the current body of work and that a considerable amount of work had previously been done looking at barriers and gates on the land bridge. The LaCPR had considered barriers in detail and discovered some major issues. Early in the process when the Authority and Gerwick representatives met to determine the elements that would be looked at, the decision was made not to spend a lot of time attempting to analyze a high level of protection along the land bridge with gates in place because of the negative impacts. The determination was made to look at a plan that would provide some type of a structure to prevent some water from getting into Lake Pontchartrain, but would not impact the existing passes.

The Committee discussed the restoration component of the study. Mr. Turner commented that the foreshore and shoreline stabilization projects currently on the books were included in the study.

Mr. Toilliez discussed the storm selection process. Four storm characteristics were identified and eight storms were used in each case tested (100-year return level and 400-year return level). He expressed confidence that the storm selection represented a very large portfolio scenario. FEMA 2007 flood insurance study storms were used.

Dr. Kemp noted the two objectives of the study: 1) the effects of flooding around Lake Pontchartrain, and 2) expanding and strengthening the shoreline of the land bridge. He commented that the objectives are consistent with the task order requirements. He pointed out that the protected and unprotected sides of the barrier are discussed in the study; however, both sides of the barrier are unprotected. He stressed the need to look at both the Lake Pontchartrain and Lake Borgne sides of foreshore and shoreline protection.

The Committee addressed areas of the study relative to elevation and overtopping that needed clarification. Mr. Toilliez advised that he would clarify the end goal of the final elevation and sequences of construction.

Mr. Toilliez briefly discussed the modeling of current velocity in the channels and pointed out that at this point the estimate for the current velocity may not be final. Dr.

Kemp requested that more elaboration on this issue be included in the report, as well as some discussion on both the flood tide and the ebb tide.

Mr. Toilliez advised that a circulation model was run to establish the fate of the water body trapped within Lake Pontchartrain. There was some motion and some tilting of the water elevation at the highest water elevation point during the tested storm (Hurricane Katrina). Gerwick did not find any elevations nearly on par with a case with open gates or no gates. Allowance was made in the test for runoff and rainfall. Dr. Kemp commented that the report states that the locked free surface elevation could rise to about 6-ft.; however, with open gates, as during Hurricane Katrina, the elevation could rise up over 12-ft. He requested that additional explanation of this important finding be included in the report.

Dr. Kemp pointed out that the Authority has a strong interest in the project's maintenance cost. Mr. Berner advised that Gerwick would investigate to determine whether the estimated maintenance cost is present or future value. Mr. Turner noted that an additional column needed to be included in the cost table.

The method of environmentally rating the various options initially screened was discussed. Mr. Turner pointed out that additional clarification is required in the report relative to the ratings.

When questioned by Dr. Kemp about a verbal recommendation, Mr. Berner responded that questions regarding a path forward needed to be addressed. He pointed out that any barrier in the Greater New Orleans area would require major involvement by the U.S. Army Corps of Engineers (USACE). He noted that Gerwick currently has an Indefinite Delivery-Indefinite Quantity (ID-IQ) contract with the USACE. He reiterated that the study for the Authority is a feasibility study. Gerwick anticipates that there will be more damage in the future without some type of a progressive barrier. Currently, there is not enough final information to produce a final design package. Progressive decisions could be made and an incremental solution could be installed, such as a lower crest that could be upgraded in the future, if and when the need is identified. The project would have to be adaptable to accommodate potential future changes in sea level rise. In an incremental approach, a floodwall could be installed on the lower crest and the height of the wall could be adjusted as additional data is available in the future. The direction proposed by Gerwick is for an incrementally raised barrier without the gates at the current time.

Mr. Toilliez advised that Gerwick's estimate on the projected relative sea level rise is more conservative with respect to the design than the USACE's estimate; however, it is in line with mainstream projections. The estimates used by Gerwick for the study and the USACE for the design of the Hurricane and Storm Damage Risk Reduction System (HSDRRS) were discussed. The estimate used by the USACE combined sea level rise with subsidence and the increase in storm surge due to sea level rise. Dr. Kemp requested that Gerwick include a brief explanation concerning these projections in the report.

Mr. Turner asked that everyone send him their written comments, which he would forward to Gerwick. A presentation on the report will be provided by Gerwick to the Board at its December Board meeting. A review of the presentation will be arranged about a week prior to the Board meeting. He noted the potential widespread interest in the report. He also suggested that a meeting be held with the USACE regarding some of the recommendations contained in the report.

## B. Discussion of SLFPA-E's new partnership with LSU to "Establish Bald Cypress-Water Tupelo Nurseries" for restoration of forested wetlands and protection of coastal levees.

Dr. Kemp advised that Dr. John Day would provide a presentation to the Board at its November Board meeting on the proposed Cypress nursery at the Gore Pumping Station.

Dr. Lopez commented on the need for a water management plan to freshen the triangle area between the GIWW and the Ninth Ward on the protected side of the IHNC Surge Barrier for future Cypress plantings. Dr. Kemp suggested the need for an integrated planning effort and asked Dr. Lopez and Mr. Turner to discuss the SLFPA-E's goals for this area.

There was no further business; therefore, the meeting was adjourned at 3:35 p.m.